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THE

# JOURNAL OF ENTOMOLOGY.

## DESCRIPTIVE AND GEOGRAPHICAL.

VOL. II.

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LONDON:
TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.
1866.

PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.

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# JOURNAL OF ENTOMOLOGY.

No. VII.—January 1863.

## .—*Notes on the Genus* Iphias; *with Descriptions of two new Species from the Moluccas.* By Alfred R. Wallace.

E genus *Iphias* (Boisduval) has hitherto consisted of but two ;ies, both known since the time of Linnæus. Having myself covered in the Moluccas two new species allied to *I. leucippe*, and ding that *I. glaucippe* consists of several distinct varieties, each e inhabiting a limited district, I propose to point out the characters stinguishing these, and make some remarks on the habits and dis-ibution of this interesting genus.

The species of *Iphias* are all large and handsome butterflies, frequenting the skirts of forests and the margins of streams in forest districts. The males often settle on the ground in damp or muddy places, in company with many *Papilionidæ* and *Pieridæ*. When thus resting, with wings erect, they are at once distinguishable from all around them by the peculiar attitude they assume, the upper wings being depressed between the lower pair, so that its basal half is completely hidden by them. As probably a consequence of this, we find that this basal half of the upper wings is always pale in colour on the under side, and devoid of the characteristic markings of the exposed portions. The females fly rather low, in woods and thickets, and, seldom coming out into the open grounds, are therefore less frequently captured.

The three species found in the Moluccas are all scarce insects, whereas that which inhabits the western islands of the Archipelago and the continent of India (*I. leucippe*) is much more abundant, and is one of the most striking and beautiful of the insect ornaments of these regions. When in fine condition, the red patch on the upper wings has iridescent violet reflexions, which are still more conspicuous in the superb *I. leucippe* of Amboyna.

I have retained Boisduval's name *Iphias* for this genus, becaus he first properly characterized it; and his name was, I believe, i universal use among entomologists till Mr. Doubleday, in hi "Genera," revived Hübner's forgotten name *Hebomoia*, thereb doing his best to introduce confusion and misunderstanding into perfectly satisfactory and uniform nomenclature.

I presume that the proper application of the law of priority is t determine among conflicting names still in use, and thus establish uniform nomenclature. To apply it to rake up obsolete names, an thus create synonyms and produce the confused nomenclature it wa intended to abolish, is an abuse which ought not to be tolerated.

Specimens of *I. glaucippe* have been sent from N. India and Ceylon while *leucippe* is found in Ceram, the easternmost of the Molucc group. No species of this genus was seen during my many months residence in New Guinea and the islands of the Papuan group, no has any been discovered in Australia. Three species, and those th most beautiful and striking, inhabit a small district in the Malay Archipelago—the Moluccas or true Spice Islands; while one only, subject to much variation, spreads over an area of very much greate extent, from Celebes to India. From these facts it might be con cluded that the Moluccas were the true metropolis and original seat of the genus, and that it had spread itself thence to the peninsula and continent of India. But, from the general character of the fauna of the Moluccas, I have come to the conclusion that it is altogether derivative. The great mass of its forms may be traced to New Guinea, while a few only bear the stamp of the Indian region. I am inclined, therefore, to the opinion that the true home of the present genus was on the continent of Asia, at a time when it embraced the great islands of the Archipelago, Java, Sumatra, and Borneo; that it has thence spread to the Moluccas; and owing to the isolation and difficulties of communication between those comparatively small islands preventing the frequent crossing of the different races, they have become modified into the distinct forms they now exhibit; while the races inhabiting those larger islands, which oppose to each other long lines of coast, have had their variations checked and retarded by frequent intermixtures of races, so as to result in those less marked and less stable forms which we have found it most convenient to class as local varieties.

### *Iphias glaucippe.*

*Papilio glaucippe*, Linn.; Cramer, t. 164; Bois. Sp. Gen.

*I.* alba; alis anticis macula magna apicali rubro-aurantia plus minusve

nigro marginata, maculisque nigris serie submarginali digestis. ♀. Alis anticis margine punctisque nigris dilatatis; posticis margine serieque punctorum nigris.

*Hab.* N. India; Ceylon; and Malayan Islands to Celebes.

Loc. var. (1). *Timoriensis.*

Has the orange-red apical patch rather lighter in colour than in the other varieties, with a very narrow dark border on its upper and outer margin, while on the inner edge it is simply tinged with yellow where it comes in contact with the white ground-colour of the wing. The submarginal row of spots is smaller, and sometimes almost obsolete. Rather smaller than the other forms.

*Hab.* Timor.

Loc. var. (2). *Philippensis.*

The red patch is interruptedly black-margined on its inner edge, where it is yellow-tinged; the submarginal triangular spots are large, and the two upper ones confluent with the margin. The female has a pale sulphur tinge.

*Hab.* Philippine Islands (B. Mus.).

*Note.* Specimens from the Island of Lombock agree best with these, but have the small submarginal spots of the Timor form (B. Mus.).

Loc. var. (3). *Javanensis.*

The red patch has a narrow, irregular black margin on its inner side, and the row of triangular spots is large and well defined. The female is very slightly yellow-tinged.

*Hab.* Java.

*Note.* The Indian and Ceylon specimens in the B. Mus. are very like this form, but have the red-and-black apical patch smaller.

Loc. var. (4). *Celebensis.*

These generally resemble the last; but the wings are more pointed than in any of the preceding, and the apical patch is decidedly larger, the red colour spreading into the discoidal cell, and the black reaching across quite to the outer angle of the wing. The inner black margin of the red spot is also broad and clear.

*Hab.* Celebes.

Loc. var. (5). *Borneensis.*

In this form the wings are pointed as in the last; the red spot is much smaller, with the entire margin and the apex of the wing broadly black.

*Hab.* Borneo.

*Remarks.*—Of these varieties, the first and last are the two extremes, and may be distinguished at a glance. Had no others existed, they would have been at once characterized as very distinct

species. But the allied forms here described break down the boundary-lines that separate them, and others probably yet remain to be discovered, so that it seems more convenient to consider them as local races. The best-known form of the species, that from India and Java, has characters which are nearly intermediate between the others, and may thus be considered as the typical race. All the varieties have very nearly the same creamy-white ground-colour of the wings and the same peculiarly irrorated under surface.

### *Iphias leucippe.*

*Papilio leucippe*, Cram. t. 36; Bois. Sp. Gen.

*I.* flava; alis anticis magna ex parte aurantio-rubris, margine exteriore punctorum serieque submarginali nigris. ♀. Alis anticis nigris rubro striato-maculatis; posticis sulphureis, margine punctorum serieque submarginali nigris.

*Hab.* Amboyna; Ceram.

This fine species does not seem to vary, and is the richest in colour of the genus. It is by no means abundant in Amboyna, where it is only to be met with in the forest-clad mountains of the interior. In Ceram it is still more scarce.

### *Iphias leucogynia.* (Pl. I. fig. 1, ♂, fig. 2, ♀.)

♂. *I.* supra sulphurea; alis anticis macula magna centrali fulvo-rubra, apice marginibusque exterioribus nigris. Subtus fulvescens; alis anticis dimidio apicali fusco irrorato; posticis sparsim irrorato-maculatis.

♀. Supra, alis anticis fusco-nigris, margine interiore basin versus albo; posticis albis, margine exteriore maculisque rotundatis submarginalibus fusco-nigris. Subtus alba, dense fusco irrorata, dimidio basali alarum anticarum immaculato sulphureo tincto.

Exp. al. 4·5.

*Hab.* Bouru (Ins. Moluc.).

The male somewhat resembles *I. leucippe*, but is of a rather paler yellow, which colour extends on the upper wings to the median nervure and beyond its 3rd branch. The red of the upper wings is nearly the same in colour as in that species, but much less in extent, the outer margin and apex being broadly black. The submarginal row of black spots is also rather larger and less clearly defined.

The female is remarkable by the entire absence of any yellow or red colour. The lower wings are of a semitransparent pearly white, which extends on to the upper as far as the yellow does in the ♂. The rest of the upper wings, the outer margin of the lower, and a submarginal row of six spots are dusky black.

The head and thorax in both ♂ and ♀ are brown-tinged; the abdomen of the colour of the wings respectively.

The under surface has the characteristic markings of the genus; but in the ♀ they are more dense, while in the ♂ the lower wings have only scattered spots and striæ.

I first found the female of this interesting species flying among dense thickets in the island of Bouru, and was completely puzzled by its appearance, till I one day caught a glimpse of the under side of its wings, when I knew it must be an *Iphias*. I afterwards obtained a few males; but it was never abundant.

*Iphias sulphurea.*

♂. *I.* supra pallide fulvo-sulphurea; alis anticis apice late nigro, maculaque magna apicali fulvo-rubra; margine costali grisea. Subtus fulva fusco irrorata; alis anticis apice obscuriore, basi flava immaculata.

♀. Alis anticis macula rubra apicali parva; posticis margine posteriore intus dentato maculisque submarginalibus nigris.

Exp. al. 4·5.

*Hab.* Batchian, Gilolo (Ins. Molucc.).

The male resembles at first sight the Borneo var. of *leucippe*, but is entirely of a pale lemon-yellow instead of white. The black apical portion is smaller, only touching the end of the discoidal cell; and the red patch is very much smaller, containing only three triangular black spots, the two upper of which join the outer, and the lower the inner portion of the black border. The lower wings have the posterior margin tinged of a deeper yellow.

The female generally resembles the male, but the black extends a little further on the upper wings, and on the lower forms a broad band, dentated within along the posterior margin. Within this is a row of six subtriangular spots, as in the females of the other species. Beneath, the lower wings and the apical portion of the upper are rich fulvous yellow, thickly covered with dusky irrorations, which are darker on the inner margin of the lower and the apex of the upper. The basal portion of the upper is pale sulphur-yellow.

This fine species occurred in Batchian (a single male specimen, taken on the margin of a stream), and in Morty Island, to the N. of Gilolo, whence my collector, Mr. Allen, has sent me both sexes.

II.—*Descriptions of new Species of* Cassididæ, *together with a List of all the Species belonging to the same Family collected by the late* M. Mouhot *in Siam and Cambodia.* By Joseph S. Baly.

The insects described in the following paper are principally those sent to this country by M. Mouhot; added to them are a few others lately received by me from other parts of the world. With regard to the *List of Species*, I have undertaken, in accordance with the wishes of Mr. Saunders, to draw up a catalogue of the Phytophagous insects collected by the late M. Mouhot, a set of the species having been ceded to me for that purpose. I propose taking each family separately, publishing them from time to time in this Journal as opportunities for their study arise. I have taken the Cassididæ first, Professor Boheman's recent supplement having brought our knowledge of that group up to the present time. All the species contained in M. Mouhot's early collections were sent by me to Boheman for determination; and one, *Coptocycla plausibilis*, was described by him as new. The new species in the present paper arrived too late for insertion in his work.

*Sphæropalpus Deyrollei.*

*S.* oblongo-ovatus, modice convexus, flavus, subnitidus, subtus nitidus; antennis, thoracis plaga dorsali, a basi fere ad apicem extensa, scutello, mesocoxarum plaga, geniculis, tibiarum apice, tarsis, metasterni macula triangulari parva, elytrisque nigris; his crebre subrugoso-punctatis, punctis prope suturam subseriatim, disco vage dispositis, utroque disco interiore obsolete bicarinato; margine basali anguste obsoleto, vitta suturali, vix ante apicem abbreviata, vitta submarginali a paullo infra basin ad vix pone medium continuata, fasciaque centrali subinterrupta, flavis.—Long. $9\frac{1}{2}$ lin.

*Hab.* Brazil.

Oblong-ovate, moderately convex, flavous, subnitidous, shining beneath. Thorax rather more than twice as broad as long; sides broadly rotundate-ampliate, slightly narrowed at the base, the anterior angles armed with a very small obtuse tooth; upper surface remotely but deeply and irregularly pitted, middle of disk longitudinally grooved, sides very deeply impressed, rugose-punctate, dilated margin reflexed, rather less closely punctured than the sides of the disk; on the disk is a large black longitudinal patch, which extends from the base nearly to the apex of the thorax. Scutellum forming an elongated triangle, the apex obtuse, its surface smooth, impressed near the apex with a single fovea. Elytra punctured as in *S. cinctus*, sides obliquely dilated from the base to the middle, then obliquely narrowed and slightly rounded to the apex; the latter narrow, obtuse.

For the possession of this beautiful insect (which is probably a

*male*) I am indebted to the liberality of M. H. Deyrolle, to whom I have dedicated it. Professor Boheman's description of *S. cinctus* is also apparently made from an individual of the same sex, which I have never seen,—my specimen of that species (doubtless a female) agreeing with Boheman's insect entirely in colouring, but differing in having the elytra oblong, and not narrowed behind, and also in the sides of the thorax being less dilated, and rounded and narrowed from base to apex. In the present species the elytra are more quickly narrowed from their middle to their apex, the latter obtuse; the scutellum also is longer and narrower than in *S. cinctus*.

*Calopepla Mouhoti.*

*C.* oblonga, convexa, viridi-cærulea, nitida, antennis nigris; thorace reflexo-marginato, medio profunde canaliculato, utrinque profunde foveolato; elytris profunde punctatis, disco irregulariter elevato-reticulatis, prope suturam bi-, prope marginem exteriorem unicarinatis.—Long. 5 lin.

*Hab.* Laos; Siam.

Oblong, convex, shining metallic greenish-blue. Thorax narrowly edged with a reflexed border; sides oblique at their base, sinuate before the middle, slightly rotundate-ampliate below the latter, their apex regularly rounded, basal angle thickened; disk smooth, its middle channeled by a deep longitudinal groove, dilated at its base, either side impressed with three or four large deep foveæ. Scutellum impressed near its apex with a shallow fovea. Elytra more than four times the length of the thorax, deeply punctured; each elytron near the suture has two raised longitudinal costæ, connected here and there by short transverse ridges; near the outer border is a third, more irregular and less distinct than the two former; remainder of the surface covered with a strongly raised reticulation enclosing small irregular deeply punctured interspaces; side margin narrowly dilated, deeply punctured.

The much smaller size, the deeply punctured thorax, and, in addition, the nearly uniform colour at once separate this striking and beautiful insect from *C. Leayana*, the common species.

*Epistictia perplexa.*

*E.* ovata, convexa, rufo-testacea, subtus pallide rufo-picea, antennis nigris; thorace rude punctato, nigro bimaculato; elytris profunde punctatis, singulatim prope suturam minus distincte bicarinatis, carina exteriore fere obsoleta; utroque maculis novem metallico-cæruleis notato, maculis duabus exterioribus margine adfixis.—Long. $4\frac{2}{3}$ lin.

*Hab.* Laos.

This species is very closely allied to *E. viridimaculata*, Boh. I have, however, separated it for the following reasons:—the spots on

the elytra, equal in number and similarly arranged with those in *E. viridimaculata*, are larger, and the two exterior extend across the lateral border of the elytra to its outer edge; the longitudinal vittæ are much less distinct, the outer one being nearly obsolete; the insect is also rather longer, and its under surface is more deeply stained with rufo-piceous. In form and all other respects it agrees with Boheman's species.

*Epistictia Parryi.*

*E.* elongato-ovata, minus convexa, subnitida, pallide rufo-fulva, antennis (articulis basalibus duobus exceptis) nigris; thorace lateribus subcrebre, disco subremote punctato, utrinque plaga magna nigra, basi adfixa, instructo; elytris dorso subdeplanatis, profunde punctatis, singulatim prope suturam bicarinatis, carina exteriore infra medium obsoleta; utroque nigro novemmaculato, macula postica e serie exteriore ad marginem lateralem adfixa.—Long. $4\frac{1}{2}$ lin.

*Hab.* Assam.

Of this species a single specimen, from Assam, has existed for some time in my collection, placed, although with doubt, as a variety of *E. viridimaculata*. The inspection, however, recently of a fine series in the collection of Major Parry has convinced me that it is a good and distinct species. It differs from *viridimaculata* in being narrower in front and less ovate; it is also depressed above and much less convex, its upper surface being flattened, especially the anterior half of the disk of the elytra: the spots on these latter are also quite black, and without metallic tinge; the lower one on the outer disk is placed much more outwardly, and attached to the edge of the lateral margin; in all other respects the spots are arranged as in the old species. Major Parry's specimens are without precise locality.

*Prioptera rugosa.*

*P.* subrotundata, valde convexa, fusco-fulva, subnitida, antennarum articulis duobus ultimis nigris; elytris obscurioribus, leviter gibbosis, valde convexis, disco profunde rugoso-punctatis, elevato-reticulatis, utroque prope suturam unicarinato, margine laterali late explanato, lævi, pone medium plaga magna nigra, dorso excavata, introrsum supra discum paullo extensa, instructo.—Long. 5 lin.

*Hab.* Pachybouri; Laos.

Subrotundate, convex, fusco-fulvous, subnitidous; antennæ robust, their last two joints black. Thorax twice as broad as long, sides broadly dilated; disk impunctate, irregularly excavated on either side near the hinder portion of the dilated margin, basal lobe impressed with a deep fovea. Elytra three times longer than the thorax; sides obliquely dilated, and slightly rounded from the base to beyond the middle, thence obliquely rounded to the apex, the latter subangulate; disk

very convex, obsoletely gibbose before the middle, deeply rugose-punctate, covered with a strongly raised irregular reticulation enclosing small interspaces; on each side, a short distance within the suture, is a strongly raised longitudinal ridge, which sends short transverse branches to the suture; lateral margin broadly dilated, its surface sinuate; below its middle is an irregularly excavated transverse black patch, which extends a short distance on to the limb of the disk.

The species is much more strongly rugose than any other with which I am acquainted.

*Prioptera gibbosa.*

*P.* ovato-rotundata, valde convexa, fulva, subnitida, subtus nitida; thorace utrinque basi nigro maculato; elytris sat fortiter punctatis, infra basin excavatis, ante medium in gibbum compressum acutum elevatis, disco hic illic irregulariter excavatis, pone gibbum late foveolatis, confuse elevato-reticulatis; utroque maculis quatuor magnis, duabus infra basin duabusque pone medium, seriebus duabus transversim positis, secunda in serie posteriore ad marginem lateralem adfixa, nigris; margine exteriore late explanato.—Long. 5 lin.

*Hab.* Tringanee. Sent by the Count of Castelnau.

Ovate-rotundate, fulvous, subnitidous, shining beneath. Antennæ scarcely longer than the thorax, entirely fulvous. Thorax smooth, impunctate, its basal lobe impressed with a round deep fovea, from the apex of which an indistinct groove runs upwards on the disk; on either side of the latter, attached to the base, is a large nigro-piceous patch. Elytra very convex; sides obliquely ampliate and slightly rounded from their base to the middle, then for a short space rotundate-angustate, thence to the apex obliquely angustate, the apex itself being subangulate; upper surface elevated before the middle into a transversely compressed, subacute gibbosity, the surface of which is covered on either side with three large foveæ, two in front, oblong, the third on the hinder surface, irregular; disk distinctly punctured, the punctures being indistinctly arranged on the outer side in irregular striæ; surface irregularly pitted, confusedly elevate-reticulate; each elytron with four large black spots, arranged as follows:—one below the base, on the outer surface of the gibbose portion; the second just below the humeral callus, parallel with the first; the third nearly halfway between the middle and apex, close to the suture; and the fourth parallel to the third, placed on the outer margin, its surface excavated; dilated border smooth, concave before the middle.

*Prioptera nigricornis.*

*P.* oblonga, convexa, nitida, pallide flavo-fulva, plaga metasterno antennisque (harum articulo basali excepto) nigris; thorace lævi, basi tenuiter nigro marginato, disco nigro binotato; elytris basi non gibbosis, disco

obsolete bifoveolatis, subcrebre punctatis, prope suturam obsolete carinatis, utroque maculis quatuor nigris, duabus infra basin duabusque pone medium positis, exteriore e serie secunda in marginem dilatata, instructo.—Long. 4 lin.

*Hab.* Laos; Siam.

Var. A. Elytrorum macularum una alterave obsoleta.

Oblong, convex, pale flavo-fulvous, nitidous; a patch on the metasternum and the antennæ (their basal joint excepted) black. Vertex nigro-piceous; antennæ half the length of the body, robust. Thorax twice as broad as long; basal margin bisinuate on either side, narrowly edged with black; side margin broadly dilated, slightly reflexed; disk smooth, marked on either side with a round black spot. Elytra nearly four times the length of the thorax; sides subparallel, slightly increasing in width from the base to just beyond their middle, thence rounded to the apex; above moderately convex, not gibbose at the base, obsoletely impressed on the anterior disk with several broad shallow foveæ; surface of disk somewhat closely covered with distinct punctures, arranged on the anterior half and along the suture in irregular striæ; in some specimens, near the suture, is seen a nearly obsolete costa; on each elytron are four black spots, arranged in two transverse rows, viz. one below the base, the other beyond the middle; the first three spots small, and frequently one or other obsolete; the fourth large, transverse, and produced to the lateral border; outer border moderately dilated, smooth, impunctate, separated from the disk by a single row of large transverse impressions.

*Aspidomorpha hexaspilota.*

*A.* rotundata, modice convexa, pallide flava, nitida, antennarum articulis duobus ultimis nigris; elytris basi obsolete excavatis, ante medium vix gibbosis, disco tenuissime punctato-striatis, utroque punctis parvis tribus ante medium triangulariter dispositis nigris instructo, margine laterali late explanato, intra limbum hyalino.—Long. 5 lin.

*Hab.* Cambodia.

Rotundate, moderately convex, pale yellow, nitidous. Thorax twice as broad as long; sides rounded at the base, then obliquely rounded towards the apex, the latter obtusely rounded; above smooth and impunctate, with the exception of a narrow band of very minute punctures, which runs transversely across the centre of the disk; dilated margin moderately reflexed. Elytra two and a half times longer than the thorax; shoulders scarcely prominent, their apex rounded; sides rounded, and scarcely dilated from their base to before their middle, then gradually rounded and narrowed to the apex, the latter regularly rounded; upper surface moderately convex, indistinctly excavated at the base, obsoletely gibbose before the middle; surface very finely punctate-striate, the puncturing being rather coarse, and deeper on the outer disk; on each elytron are seen three small black spots, trian-

gularly placed before the middle, viz. one close to the basal margin, just within the humeral callus, the second near the suture, close to the apex of the gibbose portion, and the third on the outer disk, about its middle, immediately under the first; lateral margin broadly dilated, its limb reflexed; surface impunctate, hyaline, outer limb concolorous with the disk of the elytron.

*Aspidomorpha Stevensi.*

*A.* subrotundata, convexa, pallide fulva, nitida; antennarum articulo 10$^{mo}$ nigro, 11$^{mo}$ . . . .; elytris disco tenuiter punctato-striatis, basi retusis, ante medium in gibbum conicum acutum elevatis, utroque ramulos duos fuscos, subtus nigros, unum basi, alterum pone medium ad marginem exteriorem emittente; margine laterali late explanato, obsolete transversim strigoso, macula elongata postice angustata inter ramulos instructo.—Long. $4\frac{2}{3}$ lin.

*Hab.* Cambodia.

Subrotundate, convex, pale fulvous, nitidous. Thorax twice as broad as long, dilated margin slightly reflexed; sides rounded at the base, obliquely rounded and narrowed from behind the middle to the apex, the latter rounded; upper surface smooth, impunctate. Elytra much broader than the thorax, nearly three times its length; shoulders slightly produced anteriorly, subacute, their apex rounded; sides rounded and slightly dilated from their base to before the middle, then rounded and narrowed to the apex, the latter rounded; upper surface convex, feebly excavated at the base, elevated before the middle into a conic, acute gibbosity; disk finely punctate-striate, obsoletely excavated on its outer half; lateral margin broadly dilated, its outer edge slightly reflexed, its surface obsoletely wrinkled; running across it from the margin of the disk are two narrow fuscous transverse spots, black beneath, viz. one at the shoulder, the other placed far below the middle; stretched between these is an elongate hyaline patch, gradually narrowed behind.

This species is near *A. lobata*, Boh.; the surface of the elytra is smoother, and the ramuli extending across the dilated border are much narrower.

*Aspidomorpha fraterna.*

*A.* rotundata, convexa, pallide sordide fulva, nitida, antennarum articulis duobus nigro-piceis; elytris basi excavatis, ante medium in gibbum acutum elevatis, disco hic illic obsolete excavatis, evidenter punctato-striatis, striis interruptis; utroque basi ramulum fuscum subtus nigro-piceum ad angulum humeralem emittente; margine laterali late explanato, obsolete transversim strigato, intra limbum hyalino.—Long. 6 lin.

*Hab.* Cambodia.

Rotundate, convex, pale obscure fulvous, nitidous. Thorax twice as broad as long; sides quickly rounded at the basal angle, the lateral

and apical margins rounded, and forming together the segment of a sphere; upper surface smooth, impunctate, irregularly pitted on either side between the disk and margin; dilated margin slightly irregular, scarcely reflexed. Elytra about three times longer than the thorax; shoulders slightly prominent anteriorly, their apex rounded; sides rounded and slightly dilated to the middle, then rounded and narrowed to the apex, the latter rounded; upper surface convex, deeply excavated and retuse at the base on either side the suture, elevated before the middle into an acute gibbosity, surface irregularly pitted on the outer disk, distinctly punctate-striate, the striæ interrupted; on each elytron, at the base, is a transverse fuscous vitta, pitchy-black beneath, which extends from the edge of the disk along the basal margin to the humeral angle; disk separated from the outer margin by a single row of deep punctures; from the middle of the edge of the disk a short raised process is produced a short distance across the margin; lateral border broadly dilated, its limb narrowly reflexed; surface convex in its middle portion, concave at the base and apex, covered with nearly obsolete, irregular transverse strigæ; outer limb concolorous with the disk of the elytron; remainder of the surface hyaline.

This insect must be placed close to *A. elevata*, Fab.

### *Coptocycla flavoplagiata.*

*C.* subtriangularis, flava, nitida, thoracis plaga basali, apice truncata, nigra, basi flavo notata; elytris evidenter punctato-striatis, ante medium valde gibbosis, plaga magna discoidali, a basi fere ad apicem extensa, utrinque medio emarginata, nigra, maculas duas flavas ferente; margine late explanato, humeris modice prominulis, antennarum articulo ultimo apice nigro.—Long. 4–5 lin.

*Hab.* Tringanee.

Subtriangular, shining flavous; last joints of antennæ black. Thorax one-third broader than long, apex obtuse, sides regularly rounded; upper surface smooth, sides obsoletely reflexed; at the base is a broad subtrigonate black patch, the apex of which is broadly truncate; in the centre of its base is a deeply impressed yellow fovea. Scutellum trigonate. Elytra much broader at their base than the thorax; shoulders subprominent, their apex quickly rounded; sides obliquely rounded and narrowed from the base towards the apex, the latter regularly rounded; upper surface very convex, elevated just before the middle into a strong, subacute gibbosity, the anterior surface of which is excavated; disk distinctly punctate-striate, the puncturing however becoming nearly obsolete towards the apex; nearly covering the disk is a large subquadrate black patch, which extends from the base almost to the apex, its lateral border notched in the middle, its hinder edge notched on either side; on its surface are two large flavous patches, the first subquadrate, commencing at the base and covering the gibbosity nearly as far as the middle of its hinder surface, the second

transverse, placed just behind the middle of the disk; lateral border broadly dilated, impunctate.

List of *Cassididæ* collected by the late M. Mouhot in Siam and Cambodia.

*Calopepla Leayana*, Latr. Boh. Mon. Cass. i. p. 9.
Laos; Siam.

*Calopepla Mouhoti*, Baly. *Vide anteà*, p. 7.
Laos.

*Epistictia viridimaculata*, Boh. Mon. Cass. i. p. 15.
Cambodia; Siam.

*Epistictia perplexa*, Baly. *Vide anteà*, p. 7.
Laos.

*Prioptera Westermanni*, Mannerh. Boh. Mon. Cass. i. p. 45.
Cambodia; Siam.

*Prioptera rugosa*, Baly. *Vide anteà*, p. 8.
Cambodia; Siam.

*Prioptera impustulata*, var. A. Boh. Mon. Cass. i. p. 46.
Cambodia; Siam.

I possess two individuals of this variety: one from Cambodia, in which the lateral marginal spot of the elytron is ill defined and nearly obsolete; the other from Laos, where it is fully developed and transverse.

*Prioptera nigricornis*, Baly. *Vide anteà*, p. 9.
Laos.

*Aspidomorpha miliaris*, Fabr. Boh. Mon. Cass. ii. p. 261.
Cambodia; Siam.

*Aspidomorpha hexaspilota*, Baly. *Vide anteà*, p. 10.
Laos.

*Aspidomorpha S^te^ Crucis*, Fabr. Boh. Mon. Cass. ii. p. 287.
Cambodia; Siam.

*Aspidomorpha quadrilobata*, Boh. Mon. Cass. Suppl. p. 268.
Siam.

*Aspidomorpha Stevensi*, Baly. *Vide anteà*, p. 11.
Cambodia.

*Aspidomorpha dorsata*, Fabr. Boh. Mon. Cass. ii. p. 295.
Cambodia; Siam.

*Aspidomorpha fraterna*, Baly. *Vide anteà*, p. 11.
Cambodia.

*Aspidomorpha amabilis*, Boh. Mon. Cass. ii. p. 315.
Siam.

*Aspidomorpha mutilata*, Boh. Mon. Cass. ii. p. 316.
Cambodia.

*Laccoptera vigintinotata*, Boh. Mon. Cass. iii. p. 66.
Siam; Cambodia.

*Laccoptera novemdecimnotata*, Buq. Boh. Mon. Cass. iii. p. 67.
Siam; Cambodia.

*Laccoptera hospita*, Boh. Mon. Cass. iii. p. 70.
Cambodia.

*Laccoptera tredecimpunctata*, Fabr. Boh. Mon. Cass. iii. p. 73.
Siam.

*Coptocycla plausibilis*, Boh. Mon. Cass. Suppl. p. 395.
Siam; Cambodia.

*Coptocycla scalaris*, Fabr. Boh. Mon. Cass. iii. p. 124.
Cambodia.

*Coptocycla punctaria*, Fabr. Boh. Mon. Cass. iii. p. 254.
Cambodia; Siam.

*Coptocycla circumdata*, Herbst. Boh. Mon. Cass. iii. p. 279.
Cambodia.

*Coptocycla cribrosa*, Boh. Mon. Cass. iii. p. 404.
Siam.

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## III.—*Catalogue of the* Dytiscidæ *and* Gyrinidæ *of Australasia, with Descriptions of new Species.* By the Rev. Hamlet Clark, M.A., F.L.S.

[Continued from vol. i. p. 421.]

### Tribe III. Hydroporidæ.

#### Genus 3. Celina, Aub. Icon. v. p. 219.

The insects composing this genus may be separated from all others of the Hydroporidæ by the presence of a scutellum; in form they are more parallel and more elongate. Five species are already known—four from South America, and one, *C. grossula*, Lec., from Louisiana, the description of which will shortly be published. I am able, by the aid of Mr. Bakewell's collection, to add a sixth species, found in Australia.

*C. australis*, n. sp.

*C.* elongato-ovalis, parallela, postice subacuminata, subtiliter punctato-striata, rufo-picea; capite sat rotundato, leviter acuducto et minutissime punctato; thorace lateribus leviter rotundatis, tenuiter marginatis,

basi recto, transverso, disco acuducto, ad latera et postice punctato; scutello lato, triangulari; elytris parallelis, leviter striato-punctatis, passim et confertim acuductis; corpore subtus rufo, ad apicem fusco; pedibus antennisque rufis.

Long. corp. $2\frac{4}{5}$ lin., lat. 1 lin.

Of the size and colour generally of *C. latipes*, Brull., of S. America; the thorax differs in form (is less deep longitudinally, and the basal line is transverse, not oblique); the surface entirely differs, being lævigate, and finely and sparingly punctate-striate, the interstices throughout being covered with minute longitudinal markings, as though scratched by a needle.

An example of this interesting insect is in Mr. Bakewell's collection, from Australia.

### Tribe IV. Colymbetidæ.

### Genus 1. Batrachomatus, Schaum & White (ined. Brit. Mus. Cat. Hydrocanth. p. 27).

*Corpus* ovatum, valde depressum. *Antennæ* setaceæ, articulo primo longiore. *Labrum* transversum, ad medium subemarginatum. *Mentum* bilobatum (vix trilobatum). *Palpi maxillares* quadri-articulati, articulo penultimo ad basin constricto, apicali longiore ovali: *palpi labiales* art. primo ad basin constricto, 2ndo brevi, apicali robusto longiore ad apicem obliquato. *Caput* latum, porrectum: *oculis* magnis haud exstantibus. *Thorax* latus, depressus, ad latera subrotundatus. *Elytra* paululum thorace latiora, breviter ovalia, valde depressa. *Scutellum* haud dubito triangulare et distinctum. *Pedes* fortes et breves: *tarsis anterioribus* quinque-articulatis; *unguiculis* æqualibus; *tarsis posticis* quinque-articulatis, ciliatis, robustis.

*B. Wingii* (Brit. Mus. Cat. Hydrocanth. p. 27, MS.).

*B.* ovatus, depressus, latus, impunctatus, niger, rufo lineatus, nitidus; capite magno, lato, subporrecto, ad apicem rufo; thorace antice excavato, ad latera subrotundato, basi transverso, ad apicem transverse punctorum lævi serie ornato, minutissime punctulato, nigro, marginibus (lateribus latius) rufis; scutellum in unico exemplo caret; elytris vix thorace latioribus, depressis, nigris, linea flavo-rufa lata a basi ad post medium longitudinali, alteraque obliqua a margine post medium ad apicem; antennis rufis; pedibus rufis; corpore subtus rufo-nigro.

Long. corp. 4 lin., lat. $1\frac{4}{5}$ lin.

The single species for which this genus is constructed is as interesting in the pattern of its coloration as the genus is remarkable for its form.

When viewed under a *high* power, the surface is seen to be covered

with very minute punctures. In the elytra the longitudinal flavous marking extends from the base to a little beyond the middle; it is almost medial, being *rather* nearer the margin than the suture; at the apex is a second separate and similar marking, extending *obliquely* from the margin to the apex; on the surface of either marking may be discerned small circular rufo-fuscous maculæ.

The only example that is known of this genus is in the collection of the British Museum; it was received many years ago from the north-east coast of Australia.

Genus 2. Colymbetes, Clairv. (Ent. Helv. ii. p. 188).

1. *C. lanceolatus*, n. sp.

*C.* oblongo-ovalis, ad apicem subattenuatus, rufo-ferrugineus, nitidus; capite rufo, ad basin et inter oculos late nigro; thorace leviter et dense punctato, præsertim ad basin, antice fovea transversa fortiter punctata, rufo-ferrugineo vel rufo-flavo, ad basin et antice anguste nigro marginato, ad basin plerumque maculis nigris, ad medium duabus; scutello nigro; elytris tribus punctorum seriebus, subtilissime reticulatis, sutura et sex lineis æqualibus parallelis nigris; pedibus rufis; antennis rufo-flavis, corpore infra rufo, abdominis segmentis nigro marginatis.

Long. corp. $5\frac{1}{2}$ lin., lat. $2\frac{1}{4}$ lin.

Of the thirteen examples before me of this species, there is not one which presents any variety either in shape or pattern: its narrow elongated form, acuminated towards the apex, and its evenly disposed markings on the elytra abundantly separate it from all other species known to me, either in Australia or elsewhere.

*C. lanceolatus* is found in New Zealand, Van Diemen's Land, at Melbourne, and Adelaide.

In the collections of the British Museum, Mr. Bakewell, Mr. Bowring, Mr. Waterhouse, and the Rev. Hamlet Clark.

2. *C. pulcher*, n. sp.

*C.* ovalis, sat brevis, rufo-fuscus; capite ad apicem infra oculos bifoveolato, rufo, ad basin et transverse inter oculos nigro; thorace ad latera subrotundato, immarginato, impunctato, lævi, ad basin et antice transverse subdepresso et sparsim rufo punctulato, tenuiter nigro; scutello nigro; elytris fusco-nigris, ad latera et apicem rufo irroratis, punctorum seriebus duabus (veluti striis) minutis sparsis; antennis pedibusque rufis; corpore subtus rufo-fusco.

Long. corp. $5\frac{1}{2}$ lin., lat. $2\frac{1}{2}$ lin.

A distinct and handsome species, to be recognized from others of the group by its rufous thorax, margined in front and at the base by a narrow, even line of black.

I have received the species from Mr. Stevens, from New Holland; Mr. Bakewell has taken it in S. Australia, and placed an example from his cabinet in the collection of the British Museum.

3. *C. adumbratus*, n. sp.

*C.* ovalis, brevior, flavus; capite flavo, ad basin transverse nigro; thorace ad latera rotundato, margine basali recto haud sinuato, impunctato, lævi, ad apicem transverse depresso et punctatulo, flavo; scutello fusco-nigro; elytris latis, punctorum seriebus obsoletis duabus sparsorum, harum utraque biserie macularum nigrarum minuta compressa, notata inter has lineas; elytris crebre nigro notatis veluti vermiculari, infra medium et apicem juxta transverse nigro adumbratis; pedibus antennisque rufo-flavis: infra nigro-rufus.

Long. corp. 5 lin., lat. $2\frac{3}{4}$ lin.

This species nearly resembles *C. consputus* of Sturm; it is broad, short, and of a pale flavous colour. The markings of its elytra, when seen under a high power, are very different: instead of circular closely arranged dots, the surface is covered with connected tortuous markings, not fine as if scratched with a needle, but broad and closely arranged; these markings are interrupted by two longitudinal lines, each formed by a double line of more continuous black dots, together forming between them a longitudinal white marking; along these two white markings are arranged sparingly and faintly minute punctures; the surface is postmedially clouded over with black (especially near the suture), and also less broadly so near the apex.

I have received, at different times, three examples of this species from Mr. S. Stevens and Mr. Cuming, from the New Hebrides.

4. *C. australis*, Aubé (Sp. Gén. p. 236). *C. rufimanus*, White (Zool. Ereb. & Terror, Ent. p. 6, 1844).

A very abundant and slightly variable species; it is found in New Zealand, the Fiji Islands, and in different parts of Australia and Tasmania; three examples that I have received from the interior of New Zealand are decidedly smaller in size. I hesitate in referring the species (from a consideration of the examples before me) to *C. pulverosus*, Sturm, as has been suggested.

5. *C. notatus*, Fab. (Aub. Sp. Gén. p. 239). New Zealand.
6. *C. discicollis*, Aub. (Sp. Gén. p. 250). Java.
7. *C. pacificus*, Boisd. (Voy. d'Astrolabe, p. 16). Sandwich Islands.
8. *C. monostigma*, Hope (Proc. Ent. Soc. 1842). Port Essington.
9. *C. Fabricii*, Macl. (Ann. Javan. p. 31). *C. varius*, Fab. Java.
10. *C. suturalis*, Macl. (Ann. Javan. p. 32). Java.

Genus 3. Agabus, Leach (Zool. Misc. iii. p. 69).

1. *A. latissimus*, n. sp.

*A.* ovalis, subcircularis, valde latus, depressus, punctato-striatus, niger, nitidus; capite subtilissime punctato, ad basin rufo bimaculato (aut forsan aliquando rufo marginato); thorace antice excavato, ad latera antice compresso, rotundato, tenuiter marginato, angulis posticis acutis, subtiliter punctatulo, nigro, lateribus et angulis anticis rufo-fuscis; scutello lato, nigro; elytris latis, brevibus, depressis, subtilissime punctatis, punctorum seriebus duabus obsoletorum; corpore subtus plano, haud convexiusculo, rufo-fusco; abdominis segmentis ad latera rufo notatis; pedibus antennisque rufo-fuscis.

Long. corp. $3\frac{3}{4}$ lin., lat. $2\frac{1}{4}$ lin.

A very aberrant form of the genus *Agabus*. Examples are in the cabinet of the British Museum, labelled "New Holland."

2. *A. spilopterus*, Germ. (Linn. Ent. 1848, p. 172).

Corresponds in size to *Agabus uliginosus*, but, according to the examples before me, varies somewhat in length and comparative breadth of body. It may be recognized by three flavous markings on the head, and a narrow flavous line near the central margin of the elytra; in some examples two minute circular flavous spots may be discerned near the inner side of this flavous line.

I am indebted to Dr. Schaum for a typical example of this species from the cabinet of Germar. In the collections also of the British Museum, Mr. Bowring, and Mr. Waterhouse.

3. *A. Tasmaniæ*, n. sp.

*A.* breviter ovatus, latus, sat depressus, obscure punctato-striatus, subtilissime vermiculatus, niger, nitidus; capite inter oculos undique bipunctato, nigro, ad apicem rufo; thorace antice emarginato, ad latera rotundato et leviter marginato, basi sinuato; elytris punctorum seriebus tribus obscuris; pedibus rufo-fuscis, antennis flavo-rufis, corpore subtus nigro.

Long. corp. 3–$3\frac{1}{4}$ lin., lat. $1\frac{3}{4}$ lin.

*A. Tasmaniæ* is smaller and narrower than *A. latissimus*; it is much more levigate than, and without the fuscous markings of, *A. reticulosus*; it is not so constricted in form as *A. lugubris*, Homb.; it approaches most nearly to *A. spilopterus*; it is however smaller, the head has no medial rufous markings, and the rows of punctures on the elytra differ somewhat as to their position, and consist of single punctures evenly arranged in line, not irregularly disposed. Two examples of this species have been received by Mr. Bakewell from Tasmania.

4. *A. Bakewelli*, n. sp.

*A.* ovalis, subtilissime reticulosus, striato-punctatus, niger, nitidus; capite impunctato, inter oculos undique foveolato, nigro, ore mentoque rufis; thorace antice emarginato, lateribus rotundatis, tenue marginatis, basi sinuato, antice ad marginem punctis transverse notato; elytris punctorum seriebus duabus subtiliter notatis, ad latera infra medium obscure rufo maculatis; pedibus antennisque rufis, corpore subtus fusco-rufo.
Long. corp. 3 lin., lat. $1\frac{1}{2}$ lin.

*A. Bakewelli* resembles in size and appearance *A. affinis*, Payk.; it is (besides other differences) more ovate and less parallel: it is probable that in some examples the subcircular rufous marking near the margin of the elytra may be obsolete.

Two examples of the species, which I name after my friend Mr. Bakewell (whose labours have added so much to our lists of S. Australian Coleoptera), are in that gentleman's collection.

5. *A. reticulosus*, n. sp.

*A.* subovalis, sat brevis, niger, opacus, subtilissime vermiculatus; capite inter oculos bipunctato, nigro, antice rufo-fusco; thorace ad latera tenuiter marginato, basi sinuato, juxta marginem anteriorem transverse subpunctato, ad latera tenuiter rufo; elytris sat latis, punctorum seriebus duabus obsoletis, nigris, ad latera plus minus rufis; corpore subtus rufo-fusco; pedibus antennisque rufis.
Long. corp. $3\frac{1}{4}$ lin., lat. $1\frac{3}{4}$ lin.

The whole upper surface of this species is in both sexes covered with very minute punctate lines, in the thorax for the most part tortuous, in the elytra interlacing with each other at right angles. There is considerable variation in the lateral marking of the elytra; its position is not parallel to the margin, but rather in a more direct line from the shoulders to the apex; in some examples it is almost obsolete; in others it is continued in a broad irregular marking, at the shoulder and postmedially flavous or rufo-flavous.

The only examples that I have seen are four specimens taken by Mr. Bakewell in Victoria.

6. *A. parvulus*, Boisd. (Voy. d'Astrol. ii. p. 50). Sandwich Islands.

7. *A. decempunctatus*, Fab. N.E. Australia.

8. *A. octodecim-maculatus*, MacLeay. Java.

9. *A. lugubris*, Homb. & Jacq. Tasmania.

Genus 4. Copelatus, Erichs. (Gen. Dytis. 1832, p. 38).

This genus cannot strictly be separated from *Agabus*, although it

will be convenient perhaps to retain it for the reception of a section of that group: the character upon which it was constructed by Erichson is "*pedibus posticis in utroque sexu utrinque ciliatis*;" this no doubt would hold good for the species known to him, but in others it entirely fails. Aubé, in his 'Species Général,' p. 366 (and in his 'Iconographie,' p. 186), points out as additional separating characters the medial lobe of the mentum, and the rounded (not carinated) prosternum: these also fail in species which have been since discovered. Lacordaire, in his 'Genera des Coléoptères' (vol. i. p. 425), abandons these characters, and suggests as the only differences the more depressed form, and the striation of the elytra. Species that I have received from Mr. Bakewell, described in this paper, and also Amazonian representatives from Mr. Bates have their elytra perfectly simple, and only obscurely punctate; while a species of *Agabus* in the British Museum (*A. latissimus* of this paper) is quite as much, or even more depressed than any species of *Copelatus*. If the genus is allowed to stand, it will contain (so far as our knowledge extends at present) all species with sulcated or deeply striated elytra, and, in addition to these, those species that are both depressed and oblong, ovate, or subparallel in form. I have little doubt that *Col. parvulus* of Boisduval (Voyage de l'Astrolabe, p. 50), registered by Aubé as an *Agabus*, will belong to this section of *Copelatus*.

1. *C. Australiæ*, n. sp.

*C.* oblongo-ovalis, elongatulus, punctato-striatus, niger; capite impunctato, inter oculos undique bipustulato, nigro, ad apicem rufo adumbrato; thorace ad latera subrotundato, ad margines undique antice et postice depresso et plus minus fortiter punctato, ad medium disci breviter canaliculato, lineolis brevissimis punctiformibus veluti acuductis, antice sparsis postice numerosis, nigro ad latera subrufulo; elytris subparallelis sat productis, punctorum seriebus tribus, ad latera et ad medium sparsim acuductis, nigris; pedibus antennisque rufo-fuscis vel rufis; corpore subtus nigro.

Long. corp. $4\frac{1}{2}$ lin., lat. $1\frac{3}{4}$ lin.

*C. Australiæ*, though closely allied to *C. acuductus*, supplies several points of difference, all of which combined will justify us in registering it as a distinct species: in the thorax the medial longitudial marking is hardly ever absent, though often obsolete; in *C. acuductus* it is never present: in the elytra of the species before us, the peculiar line-like markings, which extend in *C. acuductus* over the whole surface, are almost limited to the sides, are found very sparingly near the middle, and near the suture are entirely absent: in this species three striæ-like rows of punctures are manifest, in *C. acuductus* they

are entirely absent; this latter specific character is more valuable than the former: three examples from Melbourne present the unfoveolated thorax with elytra *almost* free from the minute impunctate lines, but possessing the *striæ-like* punctures as distinctly as the species from Victoria. I am disposed to consider these three last examples as but a geographical variety, and all as different specifically from *C. acuductus*.

Mr. Bakewell has taken this species in Victoria, and has liberally presented examples (with those of many other interesting species) to the British Museum, as well as to my own collection.

2. *C. acuductus*, n. sp.

*C.* oblongo-ovalis, elongatulus, *haud* punctato-striatus, niger, ad latera interdum rufescens; capite inter oculos bipunctato; thorace lateribus subrotundatis, ad margines undique antice et postice depresso et fortiter punctato, disco plano lineolis quam plurimis veluti acuductis ornato; elytris sat productis, *haud punctato-striatis*, passim lineis punctatis quasi acuductis ornatis, nigris; pedibus antennisque rufo-fuscis, corpore subtus nigro.

Long. corp. $4\frac{1}{2}$ lin., lat. $1\frac{3}{4}$ lin.

After some hesitation, I record this as a species separate from *C. Australiæ*; the absence of any punctate striations, especially when added to the entirely different arrangement of minute linear punctures on the elytra, forbids the two forms to be placed together; of either I have before me both sexes. The only examples that I have seen were taken by Mr. Bakewell, and, by that gentleman's kindness, have been placed in the collection of the British Museum and in my cabinet, as well as his own.

3. *C. simplex*, n. sp.

*C.* niger, nitidus, elongato-ovalis, parallelus, sparsim punctatulus; capite inter oculos undique binotato, ad basin subtiliter et parce punctato, ad apicem rufo; thorace haud antice emarginato, lateribus ad apicem constrictis et subrotundatis, tenuiter marginatis, basi recto haud sinuato, ad discum lævi, antice juxta marginem punctis transverse notato; elytris parallelis, lævibus, quatuor aut aliquando quinque seriebus punctorum leviter et sparse notatis; pedibus antennisque rufis, corpore subtus nigro.

Long. corp. $2\frac{3}{4}$–3 lin., lat. 1–$1\frac{1}{4}$ lin.

Distinguishable by its parallel and subdepressed form, and its smooth, unstriated elytra.

Taken by Mr. Bakewell in Tasmania, and by him presented to my cabinet.

4. *C. Victoriæ*, n. sp.

*C.* elongato-ovalis, parallelus, punctato-striatus, subtilissime punctatus, fusco-niger, nitidus; capite inter oculos bifoveolato, sparsim punctato, ad apicem et basin rufo; thorace antice emarginato, lateribus tenue marginatis, ad basin sinuatis, disco subtiliter acuducto, antice transverse punctato-depresso, ad medium longitudinaliter obscure foveolato, rufo-fusco ad latera rufo; elytris tribus seriebus obsoletis punctorum subliliter striato-punctulatis, ad margines aliquando rufis; pedibus antennisque pallide rufis, corpore subtus ferrugineo.

Long. corp. $2\frac{1}{3}$ lin., lat. $\frac{4}{5}$ lin.

In details of structure very nearly allied to, but in general appearance different from, *C. simplex*; it is decidedly smaller in size, rufo-ferruginous instead of black, and when seen under a high power less glabrous. Besides these apparent differences, it will be seen that the elytra differ in their striæ-like punctures: in this species there are three rows, minute, but closely and regularly arranged; in *C. simplex* there are four, and in some examples traces of five, the punctures of which are much more scattered.

This species was taken in Victoria by Mr. Bakewell. In that gentleman's cabinet, as well as in the collections of the British Museum and the Rev. H. Clark.

## Tribe V. Dytiscidæ.

### Genus 1. Hyderodes, Hope (Coleopt. Manual, part 3. p. 166).

1. *H. Shuckardii*, Hope (*loc. cit.*).

I have examples before me of this species from Van Diemen's Land, as well as from Victoria; it is not rare in Australian collections: the description by Mr. Hope sufficiently characterizes it; he points out the great breadth of the medial tarsi of the male, having evidently before him examples of the ordinary forms of ♂ and ♀.

It has long been known that among Hydradephaga two forms of females are frequently to be met with, especially in the genera *Hydroporus* and *Dytiscus*; one smooth and glabrous like the males; the other rough, granulated, and opake. This second form is met with in this genus, four examples of which are in the collections of the British Museum, Mr. Bakewell's, and my own. The surface of the elytra (and less markedly so of the thorax) is coarsely and closely vermiculated, so closely and coarsely as to give to it the appearance of almost rough granulations: but, besides this third form, I have in my collection a fourth form, or rather a form exactly intermediate between the two forms of ♀; the surface is opake,

smooth, distinctly (but not deeply) vermiculate: I have seen, in Dr. Powers's cabinet, a similar and equally interesting connecting link between the two forms of females of *Dytiscus circumcinctus*.

*H. Shuckardii* is in the cabinets of the British Museum, Oxford University, Mr. Bakewell, Dr. Schaum, Mr. Waterhouse, and the Rev. Hamlet Clark.

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## IV.—*On certain additions to the Genus* Dicranocephalus.

By Francis P. Pascoe, F.L.S., &c.

The reality of the existence of species has been questioned by many naturalists; not, however, in the Darwinian sense—that is, that as all organic beings have descended from "some one primordial form," they only differ from each other in degree, and, therefore, that classes, orders, families, genera, and species only exist as artificial combinations,—but in the sense of "special creations," and the impossibility of drawing any satisfactory line between species and varieties.

The disbeliever in the material existence of species, however, need not abandon the use of the term: as Agassiz has remarked, "species exist as categories of thought, in the same way as genera, families," &c.; and the only difference between a species and a variety appears to be, that in the first the distinctive characters are more important or more numerous than in the second, and are not bridged over by intermediate gradations, as is frequently observed in the variety. Latterly the word *subspecies* has been adopted to express a grade between species and variety, but at the same time it has been generally connected with, or assumed to be limited to, a certain geographical area. As I take it, the subspecies being dependent for its differential characters on physical, perhaps combined with other causes, and those causes being removed, it would return sooner or later to the normal condition of the species from which it had originally been derived. The species of many genera are, however, so homomorphous, as often to suggest the idea of their having had a common parentage; and no doubt it will be found to be so in many cases where their describers have been but too ready to consider the slightest variation of specific importance*.

* A striking instance of this occurs in *Paludomus aculeatus*, a river shell of Ceylon, which, according to Mr. Blanford, in a communication to the Linnean Society, has been split into no less than twenty-four species, all of which he demonstrated, by a large series of specimens exhibited at the meeting, to be reducible to one! (Trans. vol. xxiii. p. 603.)

These remarks are rendered necessary, because, in the following proposed additions to the genus *Dicranocephalus**, I do not put forward the three forms described as "undoubted species,"—although it would not be difficult to cite many instances where, in other cases, this has been done on slighter grounds; nor are they, in the present state of our knowledge, to be considered as merely geographical sub-species, and still less as instances of dimorphism. It is possible, and indeed not unlikely, that intermediate forms may hereafter be received. There is but a moderate gap to be bridged over; but, until that is done, I am sure that it would be contrary to all ordinary notions of specific distinction to unite them under the same name.

The first of these forms, *Dicranocephalus Wallichii*, was brought from Nepaul by General Hardwicke more than thirty years ago, and was described† by the late Rev. F. W. Hope in Gray's 'Zoological Miscellany,' afterwards figured‡ by Gory and Percheron in their work on the "Cetonides," and later by Prof. Westwood in his 'Arcana.' I believe there were only two representatives of the genus in Europe until Mr. Fortune went to China, when he sent home altogether a large number of specimens, which were, and have continued to be, referred to *D. Wallichii*. Mr. Bowring, however, as I understand, protested from the first at considering it identical with the old species. It is not merely as a compliment, therefore, that I have named it after him.

Within the last week or two I have been presented with a fine set of Coleoptera collected in Japan, the coast of Mantchouria, south of the Amoor, &c., by Arthur Adams, Esq., late Surgeon of H.M.S. 'Actæon;' and among others there was a specimen of the genus from Chosan, in the Corean Peninsula, which, on comparison, I found to

* Often erroneously spelt *Dicronocephalus*.

† Shortly described, but without a word of a generic kind. *Dicranocephalus* remained a mere catalogue name until the publication of the third volume of the 'Genera des Coléoptères;' M. Lacordaire must therefore be cited as its authority. MM. Gory and Percheron, in their hybrid jargon, called it "*Goliath Wellech*." *Dicranocephalus* itself is an abominably unwieldy name, and had been previously used by Hahn for a genus of Hemiptera, but it does not appear to have been adopted.

‡ The figure is very characteristic, and correctly drawn and coloured. That in the 'Arcana,' from its position, is less satisfactory, and is coloured a pale green. Mr. Hope's phrase is "*pallide flavo-viridis*." I should have thought that the British Museum specimen, from which Professor Westwood took his drawing, might originally have been green, but that the words of the French authors, "*gris-jaunâtre*," are as applicable at this moment as they probably were originally.

differ from the other two, and this I have dedicated to the generous donor. I will first give the diagnostic characters of the three forms, and then a comparative view of their differences, which will be more intelligible, I think, than a more minute description.

*Dicranocephalus Wallichii*, Hope.

*D.* griseo-pubescens; prothorace lato, turgido, carinis duabus, medio, elongatis; elytris breviter subquadratis.
*Hab.* Nepaul.

*Dicranocephalus Bowringii.*

*D.* griseo-pubescens; prothorace modice convexo, carinis duabus, medio, distinctis, brevibus; elytris angulo humerali triangulari-impresso.
*Hab.* North China.

*Dicranocephalus Adamsii.*

*D.* griseo-pubescens; prothorace modice convexo, carinis duabus, medio, parum obsoletis; elytris angulo humerali rotundato, haud impresso.
*Hab.* Corea.

The first, *D. Wallichii*, is a very much broader insect; the prothorax very convex, and swollen anteriorly, and, if viewed in profile, presenting a very considerable curve,—the two carinæ on its disk distinctly raised, narrowly and strongly defined, and, from the curve, appearing much longer; the elytra are broader and more quadrate, that is, less narrowed behind; and the tarsi are testaceous yellow, ringed with black.

The second, *D. Bowringii*, has also the tarsi coloured in the same way, and the carinæ on the prothorax are equally well defined, although shorter; but the other characters present a marked contrast to the above.

The third, *D. Adamsii*, has the tarsi entirely black; and the carinæ have nearly disappeared, leaving only two broad marks, which gradually shade off on each side, but are tolerably distinct in the middle, owing to the sudden dip of the longitudinal cavity, which is alike common to all the forms; and the humeral angle, which forms a sort of boss, is rounded, and without the triangular cavity of *D. Bowringii*.

These are not all the differences between the two last forms. *D. Adamsii* has the basal joint of the anterior tarsus not longer than the second, and the intermediate and posterior tibiæ are much shorter than the corresponding parts in *D. Bowringii*; in the former the

head is broader within the two lines which extend up the front from the horns, and is without the concavity which distinguishes the other.

Briefly to sum up the most prominent points, *D. Wallichii* is distinguished from the other two by its greater breadth and its turgid prothorax, and *D. Bowringii* from *D. Adamsii* by the triangular impression on the shoulders, always filled in by the pubescence which has escaped the abrasion which is suffered by the more projecting parts.

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## V.—*Notices of new or little-known Genera and Species of* Coleoptera.

By Francis P. Pascoe, F.L.S., &c.

[Continued from vol. i. p. 371.]

### Part IV.

Silphomorpha [Carabidæ].
Westwood, Trans. Linn. Soc. xviii. p. 415.

*Silphomorpha speciosa.*

*S.* late ovata, subtilissime punctata, viridi-purpureo-metallica, nitida, subtus nigro-chalybeata; antennis ferrugineis.

*Hab.* Queensland.

Broadly ovate, very minutely punctured, deep golden green, with brilliant dark purple or violet reflexions; body beneath and legs black, with a chalybeate gloss; femora greenish metallic; antennæ and palpi ferruginous; eyes pale; head finely corrugated and punctured, deep violet, bordered with green in front, the lip black; prothorax very transverse, bisinuate anteriorly, with very minute punctures, and divided by irregular lines into exceedingly fine reticulations; scutellum triangular, black; elytra lightly seriate-punctate, the interspaces also minutely punctured; body beneath finely corrugated, the penultimate abdominal segment deeply emarginate; tarsi dark ferruginous. Length 8 lines.

This magnificent species is very distinct from any other in the remarkable subfamily to which it belongs, but apparently a true *Silphomorpha*. The purple or dark-violet reflexion (it is difficult to fix which colour-name is most appropriate) is more decided at the base and centre of the elytra, and is also very marked at the sides of the prothorax. In my collection, and I believe unique. A coloured figure will be given in a supplemental plate.

CEPHALODESMIUS [Scarabeidæ].
Westwood, Trans. Ent. Soc. 1 ser. iv. p. 117.

*Cephalodesmius laticollis.*

*C.* niger, opacus; clypeo antice bidentato, dentibus duobus mediis basi separatis; prothorace elytris latiore.

*Hab.* Queensland.

Dull black, opake; head very transverse; the clypeus four-toothed, the two central teeth longest, linear, subparallel, and widely separated at the base; prothorax very broad, wider than the elytra, and presenting an almost foliaceous margin at the side anteriorly; elytra obsoletely striated, slightly convex, almost concave towards the shoulder; body beneath and legs dull black; palpi ferruginous. Length 7 lines.

Well distinguished from *Cephalodesmius armiger*, Westw., the only species of this genus hitherto described, by the slight convexity of its upper surface, the breadth of the prothorax, by the direction of the two central teeth of the clypeus, and their separation at the base. The head is also broader and shorter, the legs longer, and the abdomen more contracted.

DIATELIUM [Scaphididæ].

*Caput* collo elongato; *oculis* magnis, integris, rotundatis. *Antennæ* graciles, clava quinque-articulata. *Palpi* subulati, acuti. *Scutellum* liberum. *Pedes* elongati, *tibiis* bicalcaratis. *Mesosternum* carinatum.

Notwithstanding the extraordinary form of this insect, owing to its exceedingly long neck, it is very closely allied to *Scaphidium*, differing from it principally in that respect and in its entire and prominent eyes. As in the Scaphididæ generally, the abdomen has six segments, and the prothorax and elytra have the same peculiar punctation. Mr. Wallace has taken it both in Sumatra and in Borneo.

*Diatelium Wallacei.* (Pl. II. fig. 2.)

*D.* fulva, nitida; capite, prothoracis basi et medio, elytrorum macula discoidea clavaque antennarum nigris.

*Hab.* Sumatra; Borneo (Sarawak).

Fulvous yellow, very smooth and shining; head and neck nearly as long as the rest of the body together, black, the latter finely corrugated transversely; eyes fulvous; antennæ pale testaceous, short, arising from a round fovea in front of each eye, the last five joints black, forming a loose club; prothorax rounded anteriorly, convex, the middle and base black; scutellum black; elytra rather depressed, a large black discoidal spot on each; body beneath fulvous; coxæ, base and extremity of the femora, the mesothorax, and the episterna of the metathorax, as well as its posterior border, black. Length 6 lines.

Clidicus [Scydmænidæ].

Laporte, Ann. de Soc. Ent. de France, i. p. 397.

*Clidicus formicarius.* (Pl. II. fig. 3.)

*C.* setulosus, rufo-piceus; prothorace subcordato; pedibus piceis.

*Hab.* Borneo (Sarawak).

Rufous pitchy, covered with short, stiff, erect hairs; head almost obsoletely punctured, shortly triangular, bilobed behind, an elevated transverse interocular ridge beneath which and at each end arise the antennæ; eyes very small, round, lateral; antennæ claviform, the basal joint obconic, as long as the next four together, and more or less triangular, gradually increasing in size to the seventh, the last four shortly transverse; lip and epistome short, transverse; mandibles short, curved, glossy black; maxillary palpi very long, the last joint ovate, pointed, and nearly as long as the preceding, the labial short, the last joint subulate; prothorax obscurely punctured, subcordate, considerably rounded anteriorly, narrower than the head, to which it is attached by a short neck; scutellum very small, triangular; elytra ovate, convex, each with six shallow striæ, which are very coarsely punctured; anterior coxæ elongate, contiguous, the middle and posterior separated by a slight interval; femora subclavate; tibiæ fusiform, unarmed; tarsi subfiliform, all their joints, except the last, of equal length; abdominal segments six; winged (?). Length 3 lines.

To *Clidicus* belongs the genus *Erineus*, Walker. The species described by him (*E. monstrosus*) differs from the above in its subquadrate prothorax and other characters. *Clidicus grandis*, Lap., is a more slender form, with longer legs, antennæ, &c.

Narcisa [Trogositidæ].

*Caput* insertum, fronte verticali. *Oculi* divisi, superiores remoti, verticales. *Antennæ* breves, articulo primo incrassato, clava subunilaterali triarticulata. *Maxillæ* lobo interiore obsoleto. *Prothorax* transversus, lateribus foliaceis. *Elytra* marginibus subdilatata, serrulata. *Corpus* ovatum, subdepressum.

This genus will be at once distinguished from *Anacypta* by the remoteness of the upper eyes, and the serrulate and partially dilated border of the elytra; and from *Gymnochila* by the foliaceous sides of the prothorax, and by the less decided unilateral position of the club of the antennæ, as well as by habit.

*Narcisa decidua.* (Pl. III. fig. 5.)

*N.* obovata, pallide ferruginea, squamis albidis tecta; antennis rufescentibus.

*Hab.* Batchian.

Obovate, pale ferruginous, rather sparsely covered with greyish-white scales; head dark brown, deeply set in the prothorax; eyes black, rather small, vertical, remote; antennæ rufous, the club partially unilateral, with its first two joints very transverse; external maxillary lobe narrow, ciliated, the internal obsolete; maxillary palpi with the terminal joint elongate-ovate, of the labial shortly ovate; prothorax more than twice as broad as long, the sides dilated, their edges with rounded serratures; scutellum transverse, rounded behind; elytra narrower than the prothorax at the base, dilated at the shoulder, then gradually rounded with the margin less and less dilated to the apex, its edges serrated and fringed with setose scales (where the scales have fallen off, the elytra are seen to be crenate-striate, with traces of darker or brownish spots, which form a sort of band, one near the base, the other towards the apex); body beneath dark brown, the legs paler and covered with smaller scales. Length $3\frac{1}{2}$ lines.

### Leperina [Trogositidæ].

Erichson in Germar, Zeitschr. für die Entom. v. p. 453.

#### *Leperina turbata.*

*L.* late oblonga, aterrima, supra fusco-nigro squamosa, fasciculis nigris plus minus elongatis induta; elytris subparallelis, maculis duabus albis posticis.

*Hab.* Australia (Sydney?).

Broadly oblong, deep black, rather closely covered with small black and greyish scales, mixed with more or less elongate, erect or semi-erect scaly hairs, generally collected together in fascicles; head and prothorax with coarse scattered punctures, from which the scales arise; these are principally directed forwards, and are mostly greyish, a few only being black; a fascicle of black hair-like scales over each eye, and a large one nearly adjoining on each side the prothorax, on the latter a slightly raised median line; scutellum triangular, fasciculate; elytra nearly parallel, with two strongly marked costæ, three long black fascicles (longitudinally disposed), among many smaller ones, on each, between the middle and apical fascicles a silvery-white patch; legs and body beneath black, coarsely punctured, and sparsely covered with greyish setose scales; the prosternum smooth and polished. Length 6 lines.

In its long scaly fascicles this species resembles *Leperina cirrosa* (*ante*, vol. i. p. 100), but is much larger and proportionally broader, and the white scales are chiefly confined to a single spot on each elytron.

### Crine [Nitidulidæ].

*Caput* late triangulare, ante antennas sulcatum. *Antennæ* breves, duodecim-articulatæ; clava ovata, triarticulata. *Palpi* crassi, cylindrici.

*Tibiæ* trigonatæ. *Tarsi* quatuor- vel quinque-articulati, articulis tribus primis dilatatis, brevissimis. *Corpus* depressum.

The curious little insect constituting this genus belongs to the subfamily *Rhizophaginæ*, hitherto composed of *Rhizophagus* only, but to which I would also refer *Europs*, Woll., and *Nomophlœus** and *Hesperobœnus*, Motsch.† The two latter, however, appear to me to be identical. There are several discrepancies among authors in their descriptions of *Rhizophagus*. In the first place, Erichson denies that there are two lobes to the maxilla, as Curtis had represented; but M. J. du Val says that in this he is most certainly in error. Again, M. Lacordaire allows only ten joints to the antennæ, the ninth and tenth forming the club. M. J. du Val gives eleven; but in the two species which he has figured in his great work ('Coléopt. d'Europe') twelve are represented, as is the case also in Mr. Curtis's plate. As M. J. du Val states, there are unquestionably two lobes to the maxilla; and as unquestionably, I should say, are the antennæ twelve-jointed, as MM. Curtis and Migneaux have represented,—the last forming a little knob on the eleventh; but the two, although minute, are perfectly distinct. Exception may be taken that these are not true articulations, especially the last; but in any case the ninth has nothing to do with the club. They are here described as 12-jointed, as I cannot understand on what principle the last is to be ignored any more than the one preceding it. The line of punctures, which form a sort of oval on the prothorax, recalls the impres-

* Whilst these sheets were passing through the press, I have had the opportunity of examining for the first time Dr. Leconte's 'Classification of the Coleoptera of North America.' In this work *Hesperobœnus* and *Nomophlœus* are placed in the new family "Monotomidæ," which is "at once" separated from all Nitidulidæ by the "form of the anterior coxæ" (rounded in the former, transverse in the latter). Under the microscope it *appeared* to me that in some a transverse form was more or less assumed when the leg was thrown backwards; this was the case with the large, apparently rounded coxæ of *Crine*; but in *Europs* they are decidedly transverse. It is only necessary to examine the more recent entomological works (particularly the 'Genera des Coléoptères d'Europe,' *passim*) to see the wide divergence of statements in reference to mere matters of fact, where they concern the minute structures. On this account I hesitate trusting implicitly to these delicate characters, so difficult in most cases to realize.

† I have been unable to procure Colonel Motschulsky's 'Études Entomologiques,' in which, I presume, these genera were proposed. I believe the work was never regularly in the market, and can only be procured in an indirect manner. It is a question how far this is a *publication*. I have seen portions of the work in the library of the Linnean Society, but have not met with any indications of the two genera in question. I have, however, received type-specimens through M. Schaufuss, of Dresden.

sions which are common to many Colydiidæ. There is some doubt as to the tarsi: the anterior has five joints, although the basal one is only visible from beneath, as shown in the right-hand figure (Pl. III. fig. 1); but the remainder *appear* to have only four. The head, from its great breadth, appears to be only very slightly exserted. I have five or six species of this subfamily in my collection, which I have not yet examined.

*Crine cephalotes.* (Pl. III. fig. 1.)

*C.* ferruginea, nitida; capite prothoraceque vage, elytris seriatim punctatis.

*Hab.* Ega (Amazons).

Short, depressed, ferruginous, shining, the sides nearly straight, but gradually becoming narrower from the eye to the last abdominal segment; head and prothorax with large, scattered, shallow punctures, the latter with a smooth central ovate space, slightly contracted anteriorly, extending from the base to the fore margin, and surrounded by a line of strong punctures; scutellum nearly triangular; elytra abruptly rounded at the apex, with about seven rows of oblong punctures on each; pygidium strongly punctured; legs and body beneath ferruginous; abdomen, except the basal segment, strongly punctured; eyes dark brown; head large, triangular, deflexed, with a groove extending from the insertion of the antennæ to the mandibles; epistome very small, concealing the lip; eyes lateral, prominent; antennæ exposed at the base, twelve-jointed, the first large, obconic, the second and third successively smaller, the fourth to the ninth inclusive subequal in length, but gradually becoming more and more transverse, the tenth largest of all, and with the gradually diminishing eleventh and twelfth forming a shortly ovate club; palpi short, stout; labium oblong, mentum transverse; prothorax transversely quadrate; elytra as broad as the prothorax at the base; legs short, coxæ subremote, interfemoral process truncate anteriorly; tibiæ trigonate, the border at the distal end spinous beneath; tarsi short, the anterior five-jointed, the last as long as the rest together; abdomen with five segments, the three intermediate very short and equal. Length 1 line.

Phormesa [Colydiidæ].

*Caput* insertum, subquadratum, ante oculos dilatatum. *Antennæ* basi tectæ, clava biarticulata, sulcis antennariis brevibus. *Mentum* quadratum. *Maxillæ* lobis angustatis. *Prothorax* transversus, antice sinuatus, marginibus dilatatis, crenatis. *Tibiæ* lineares, breviter calcaratæ. *Tarsi* articulis tribus primis brevibus.

It will be seen from these characters that this genus differs but in few particulars from *Bitoma*; the presence of antennary grooves and the dilated margin of the prothorax are, however, of too much im-

portance to allow of its being referred to that group. *Bitoma prolata* (*ante*, vol. i. p. 102) belongs to *Phormesa**.

*Phormesa lunaris.* (Pl. III. fig. 6.)

*P.* fusca; prothorace lateribus rotundatis, utrinque bicostato, costis vix elevatis, interiore postice duplicata, exteriore interrupta; elytris luteo bifasciatis.

*Hab.* New Guinea (Dorey).

Moderately broad, dark brown; head finely and thickly granulose, considerably dilated before the eyes, and hiding the basal joint of the antennæ; mentum quadrate; labium transverse, slightly emarginate; maxillary lobes narrow; prothorax rough, granulated, rather contracted at the base, the disk with two slightly elevated costæ on each side, the interior approximating anteriorly, and forming a short, closed canal towards the head, posteriorly also approximating, then doubling back, and forming a short loop at the base, the exterior costa interrupted in the middle; elytra ovate, wider than the prothorax at its junction, with five crenulated costæ on each, the intervals with a double row of large, deeply impressed punctures, a yellow semilunar band near the middle, and a narrower and straighter one below it; legs pale ferruginous; body beneath dark brown. Length $1\frac{1}{2}$ line.

On comparison with *Phormesa prolata* it will be seen that, besides the markings on the elytra, the differences will be found chiefly in the prothorax, which in that species is not contracted, except close to the base, and is then a little before the base as broad as the elytra, that the costæ are much more strongly marked, and the outer one especially is entire in its whole length. *Phormesa prolata* is also larger, and proportionally not so broad.

*Phormesa inornata.*

*P.* fusca; prothorace lateribus medio subparallelis, basi rotundatis, utrinque bicostato, interiore postice duplicata, exteriore vix elevata; elytris postice obsolete luteo signatis.

*Hab.* New Guinea (Dorey).

A longer species than the last; the sides of the prothorax less regularly rounded, and broader in proportion to its length, the external costa straighter and nearly entire; the elytra altogether brown, except a very faint spot on each near the base.

* The diagnosis for this will now read thus:—

*Phormesa prolata.*

*P.* fusca; prothorace utrinque bicostato, costis fortiter elevatis, interiore postice duplicata; elytris obsolete luteo-maculatis.

*Hab.* Batchian.

*Phormesa demissa.*

*P.* angustior, fusca; capite subreticulato; prothorace lateribus antice rotundatis, dein subparallelis, basi vix constricto, utrinque bicostato, costa interiore postice incurvata; elytris lateribus subparallelis.

*Hab.* Malabar.

Much narrower than the preceding, brown; head rugosely punctured, with a few irregular and slightly elevated lines, so disposed as to form a kind of network; prothorax broadly margined, the disk with two elevated lines on each side, the interior approximating anteriorly and forming a short canal, strongly incurved at the base, the exterior costa entire; elytra rather broader posteriorly, each with five costæ, the intervals broad and marked with a double row of coarse obscurely defined punctures; body beneath chestnut-brown; legs and antennæ yellowish testaceous. Length $1\frac{1}{2}$ line.

Narrower than the other species of this genus, and easily distinguished from them by the form of the costæ of the prothorax and the reticulated head.

Illestus [Colydiidæ].

*Caput* quadratum, ante oculos dilatatum. *Oculi* rotundati, prominentes. *Antennæ* articulis duobus primis incrassatis, clava triarticulata. *Palpi labiales* articulo ultimo ovato, obtuso. *Prothorax* subquadratus, irregulariter sulcatus, lateribus marginatis, serrulatis. *Elytra* costata. *Pedes* graciles; *tibiis* anguste trigonatis, calcaratis; *tarsis* brevibus.

Near *Lasconotus* (subfamily *Synchitinæ*), a genus very briefly characterized by Erichson. The eyes, however, are said to be entirely covered by the dilated borders of the head—an unusual structure in this family. Here they are more than usually prominent. In the female of the species described below, the prothorax is more decidedly transverse than in the male.

Dr. Leconte, in the 'Journal of the Academy of Natural Sciences of Philadelphia,' 1859, p. 282, has shortly described a Colydian which he refers to this genus; he observes that it is "at once recognized by its concave head and three-jointed club of the antennæ," but nothing is said in reference to the unusual position of the eyes. It is from Punta de los Reyos in California.

*Illestus terrenus.* (Pl. III. fig. 4.)

*I.* fuscus vel rufo-fuscus, opacus; oculis nigris.

*Hab.* Mexico.

Dark brown or reddish brown, opake; head partially exserted, quadrate, finely granulated; eyes round, prominent, black; antennæ with the basal joint thickened, partially covered at the base, the second also

thickened but shorter, the third as long as the first, the remainder to the eighth shorter and more or less transverse, the three last forming an ovate, compact club; maxillary lobes narrow, fringed; mentum subquadrate, rounded in front; labium transverse, narrower behind; terminal joint of the maxillary palpi ovate-triangular, of the labial ovate, obtuse; prothorax somewhat quadrate, but with the sides contracted in the middle, produced at the anterior and slightly emarginate at the posterior angle, the margin rather dilated, especially anteriorly, and serrulate, the disk finely granulated; an elevated line on each side, which are nearly parallel in front, then slightly diverging, after which they approach to form a V-shaped mark, without however becoming connected, each then encloses a lozenge-shaped cavity and terminates at a short distance from the base; outside the line the prothorax is rather concave, with a slight ridge posteriorly; elytra with five strongly marked costæ, the intervals broad, with a double row of coarse punctures; body beneath dark chestnut-brown, reticulate-rugose; legs rather slender; tibiæ gradually thicker towards the extremity and slightly spurred; tarsi short, the first three joints nearly equal. Length 2–3 lines.

NEMATIDIUM [Colydiidæ].

Erichson, Naturg. der Ins. Deutschl. iii. p. 275.

*Nematidium mustela.* (Pl. III. fig. 10.)

*N.* ferrugineum; capite antice subdepresso; elytris striato-punctatis.
*Hab.* Rio; Para.

Linear, elongate, ferruginous; head finely punctured, moderately convex, somewhat flattened in front, the eyes rather large, black; prothorax half as long as the elytra, finely punctured, the sides slightly incurved; scutellum small, rounded; elytra striate-punctate, the intervals also punctured mostly in an irregular row; body beneath finely punctured; legs luteous testaceous. Length $2\frac{1}{2}$–$3\frac{1}{2}$ lines.

I have no hesitation in considering the insect just described a *Nematidium*, a genus founded on the *Colydium cylindricum*, Fab., and which, but for the expression "*elytris lævissimis*," might have been identical, so far as his short description goes. Whether the *Nematidium costipenne*, J. du Val, really belongs to the genus is, I think, doubtful. I have another *Nematidium* among Mr. Bates's Amazons Colydiidæ *, which differs from the above principally in its more slender form, shorter and more convex head, and elytra more than twice as long as the prothorax. Like *Colydium*, the first abdominal segment is *nearly* as large as the succeeding one. My description is drawn up from the largest of the two specimens now before me, which is from Rio, and belongs to Mr. Fry.

* The Colydiidæ of this collection will form the subject of a distinct paper.

Bothrideres [Colydiidæ].
Erichson, Naturg. der Ins. Deutschl. iii. p. 288.

*Bothrideres? rhysodoides.* (Pl. III. fig. 11.)

*B.* ? elongatus, castaneus, nitidus; prothorace lateribus postice angulatis, disco profunde longitudinaliter excavato, basi canaliculato; elytris ovato-oblongis, singulo quinquecostato, costa secunda abbreviata.

*Hab.* New Guinea (Dorey).

Narrowly elongate, chestnut-brown, shining; head shortly ovate, very convex in front, minutely punctured; eyes large, round, rather prominent; antennæ scarcely longer than the head, the club a little longer than broad, the last joint nearly as large as the preceding one; prothorax rather elongate, the anterior angles produced, the sides rounded, but considerably contracted posteriorly, the disk with a deep ovoid longitudinal impression extending its whole length except a little in front, but which is narrower posteriorly, (there is a very faint trace of a raised central line or space); scutellum punctiform; elytra narrowly ovate, the shoulders a little produced, the base wider than the prothorax at its junction, each with five costæ, the first sutural, moderately raised, the second extending to only about a third the length of the elytron, the remainder very strongly elevated, punctation nearly obsolete; body beneath smooth, shining, impunctate; legs moderately long, tibiæ of the anterior and intermediate pairs slightly serrated externally; tarsi about half the length of the tibiæ. Length 3 lines.

Resembles a *Rhysodes* in habit. As the specimen now before me is unique, I must, without an examination of its trophi, satisfy myself with referring it to *Bothrideres*.

*Bothrideres? nocturnus.* (Pl. III. fig. 12.)

*B.* ? elongato-ovatus, robustus, castaneus, nitidus; prothorace disco linea parallelogrammum includente impressa; elytris profunde striato-punctatis; antennarum articulo ultimo præcedente majore.

*Hab.* New Guinea (Dorey).

Elongate-ovate, reddish-chestnut, shining; head considerably exserted, hollowed out between the eyes, thinly punctured, the lip nearly hidden by the clypeus; antennæ not longer than the head, the terminal joint larger in every way than the preceding one; eyes large, very prominent; prothorax scarcely longer than wide, the anterior angles prominent, but not projecting, the sides rounded, much contracted and sinuate at the base, with a deep fovea on each side near the angle, the disk covered with very small distant punctures, and having in its centre a deeply impressed line including a parallelogrammical space; scutellum nearly punctiform; elytra rounded at the sides, the base slightly contracted, but much broader than the prothorax at its junction, striato-punctate, the interstices scarcely raised, except the third

one at the base, the first stria much deeper than the others; body beneath chestnut, finely and remotely, the mesosternum and last four abdominal segments coarsely punctured; legs stout; tibiæ short, all strongly spurred, the anterior and intermediate pairs trigonate, dilated and toothed externally; tarsi nearly as long as their corresponding tibiæ. Length 3 lines.

This species is also referred doubtfully to *Bothrideres*, principally on account of the large terminal joint of the club, and the short and unusually trigonate tibiæ; these characters are, however, chiefly ones of degree, and not of plan. An examination of the trophi (which, as the specimen is unique, I have not attempted) might probably afford stronger grounds for its generic separation.

### Machlotes [Colydiidæ].

*Caput* receptum, triangulare, sulcis antennariis. *Antennæ* breves, articulo primo incrassato, libero, clava biarticulata. *Prothorax* sulcatus, postice transversim fissus. *Elytra* ovata, costata. *Pedes* robusti; *protibiis* subtrigonatis, anterioribus spina terminali; *tarsis* brevibus.

A very distinct genus, although, from its widely separated coxæ and large basal segment of the abdomen, allied to *Bothrideres*. The sculpture of the prothorax is, however, peculiar, owing to the presence of a deep transverse cleft posteriorly, dividing, and even dipping below the longitudinal grooves by which the disk is indented. I regret that, having only a single specimen, for which I am indebted to Mr. Bowring, I cannot throw any light on the structure of its mouth, which might perhaps have afforded some clue to its affinities; but if it has no connexion with *Dastarcus*—and even in that case it cannot be a near one—it must remain for the time an isolated genus among the *Bothriderinæ* as they have been defined by Erichson.

### *Machlotes porcatus*. (Pl. III. fig. 13.)

*M.* fuscus, opacus; prothorace utrinque tricostato; elytris profunde sulcato-punctatis, interstitiis elevatis.

*Hab.* Penang.

Dark brown, opake, the antennæ and legs subrufous; head inserted to the eyes in the prothorax, small, and coarsely punctured; antennæ not longer than the breadth of the head, uncovered at their insertion, the basal joint very thick, the remainder more or less transverse, the tenth and eleventh forming a short circular club, of which the last joint is much the smallest; antennary grooves well marked; eyes round; prothorax about half as long again as broad, narrowed behind, truncate and a little gibbous in front, slightly rounded at the sides, the anterior angles prominent,—the disk with three very strong costæ on each side,

which are interrupted posteriorly by a deep irregular cleft completely dividing the four central costæ, but less perfectly each of the lateral ones, the fissure moreover in their case extending forward to near the middle of the side, where it forms a deep notch; scutellum punctiform; elytra elongate-ovate, deeply and broadly sulcated, the sulcations pitted with large squarish punctures, the interstices strongly raised and minutely crenate; prosternum coarsely punctured, with a pale curved seta arising from each puncture; meso- and metasternum and abdomen with very large scattered punctures; anterior coxæ widely apart; legs rather robust; the protibiæ with two distinct spines; the tarsi short, with the claw-joint shorter than the three preceding ones. Length $1\frac{1}{2}$ line.

On Plate III. fig. 7, I have represented the trophi of a species of *Dastarcus*, Walker. They are from a specimen given me by Mr. Bowring, who took several individuals at Penang. They differ from *Dastarcus confinis*, Pasc., only in their smaller size, and may safely be referred to that species. The only points I would call attention to, at present, are the *central* insertion of the maxillary palpus (owing, apparently, to a dilatation of the external lobe and its stipes) and the large hook-shaped apex of the internal lobe, not very plainly distinguishable in the figure, owing to the fringe of hairs which borders it, but perfectly distinct in the original.

PETALOPHORA [Colydiidæ].

Westwood, Cabin. of Orient. Entom. p. 85.

*Petalophora brevimana.* (Pl. II. fig. 9.)

*P.* nigra, subnitida; prothorace haud canaliculato; elytris singulis sex-costatis; tibiis anticis breviusculis.

*Hab.* Borneo (Sarawak).

Black, slightly nitid, with the antennæ and palpi reddish pitchy; head rather coarsely punctured, slightly produced below the eyes, with a strongly elevated mesial ridge; epistome not apparent; labrum transverse, subemarginate (not semicircular), fringed with golden-yellow hairs; antennæ fully exposed at their insertion, the club compressed and covered with short hairs; prothorax turgid, subquadrangular, gradually narrower towards the base, the sides straight, the front irregular, very obtuse, with a small vertical tooth on each anterior angle; the disk coarsely punctured, not canaliculate, but furnished with a central line, on each side of which at the base are two short diverging ridges; scutellum small, triangular; elytra parallel, gradually rounded at the apex, broader than the prothorax at its base, each with five strongly marked costæ (including the sutural) extending its whole length, and another less marked and shorter at the side, the intervals coarsely punctured; legs robust, the anterior tibiæ very broad and

short; posterior coxæ remote, with the first abdominal segment largest. Length 5 lines.

The type of this very rare genus, *Petalophora costata*, is from Java, and differs from the one described above in its canaliculate prothorax, elytra with three costæ only on each, but above all by its having a triarticulate club. Under ordinary circumstances, or if the latter character had been accompanied by any difference in habit, the two could not have been treated as congeneric; as it is, there is such a decided affinity between them, that their separation, except as species, would not be justifiable. *Petalophora*, from the greater size of the basal segment of the abdomen and the widely separated posterior coxæ, must be placed with the *Bothriderinæ* near *Sosylus*, and not with the *Colydiinæ* as has been done in the 'Genera des Coléoptères,' the learned author not having seen it, and Professor Westwood having omitted to give the only two characters by which its position could be ascertained.

METOPIESTES [Colydiidæ].

*Caput* receptum, subverticale. *Antennæ* breves, liberæ, clava biarticulata, compressa, rotundata, sulco antennario laterali. *Prothorax* subovatus, lævis. *Elytra* subparallela, carinata. *Tibiæ* breves, subtrigonatæ, calcaratæ. *Tarsi* elongati, articulo primo majore. *Corpus* cylindricum. (Coxæ posticæ distantes. Abd. segmento primo majore.)

The specimen from which this diagnosis is drawn being unique, I have not been able to examine the parts of the mouth; the genus, however, affords very distinctive peculiarities in its external characters, approximating most nearly to *Petalophora*, but differing in the form of the prothorax, antennæ, &c.

*Metopiestes hirtifrons.* (Pl. III. fig. 2.)

*M.* fusco-castaneus, nitidus; fronte fulvo-tomentosa; antennis rufescentibus.

*Hab.* New Guinea (Dorey).

Subcylindrical, dark chestnut-brown, shining; head deeply inserted in the prothorax, subvertical, the front densely covered with short fulvous hairs; antennæ 11-jointed, free at their insertion, the basal joint ovate, incrassate, the second longer than the following, pyriform, inserted at the top and side of the first, the rest transverse, the two last forming a round compressed club; antennal groove short, distinct, lateral; eye rather large, ovate; lip transverse; prothorax somewhat ovate, smooth, very convex, rounded in front and at the sides, slightly contracted behind, bisinuate at the base, covered with small, oblong, rather distant punctures, a short semicircular elevated line close to

the scutellum; scutellum small, ovate; elytra parallel, rather wider than the base of the prothorax, to which they are closely approximate, each with five very marked elevated lines, the wide excavated grooves between these impunctate, but with a faint trace of another line; body beneath dark chestnut; legs reddish chestnut; femora very robust; tibiæ short, subtrigonal, spurred, the anterior very strongly curved; tarsi elongate, the basal larger than the two following, especially the intermediate and posterior. Length $3\frac{1}{2}$ lines.

PENTHELISPA [Colydiidæ].

Pascoe, Journ. of Entom. i. p. 111.

*Penthelispa Truquii.*

*P.* fusco-castanea, subnitida; prothorace convexo, fortiter punctato, lateribus antice rotundatis, medio paullo constrictis.

*Hab.* Mexico.

Chestnut-brown, the elytra sometimes with a more reddish tint than the rest, subnitid; head coarsely punctured; antennæ rather stout, the last joint of the club somewhat narrower than the preceding one; prothorax rather longer than broad, the anterior angles produced, the sides rounded anteriorly, but a little constricted in the middle, then again slightly rounded and contracting to the base, the disk convex, without any central depression, and very coarsely punctured; scutellum transversely rounded; elytra broadest nearly at the base, and very slightly rounded at the sides for two-thirds its length, the anterior angle not produced, strongly striato-punctate, the punctures shortly linear; body beneath dark chestnut-brown, shining, very coarsely punctured; legs dark brown. Length 2 lines.

There is a great similarity between the various species of *Penthelispa**, but the prothorax appears to offer good characters by which they may be distinguished. The one described above has that part regularly convex, and free from any impression or any elevated line, and this separates it from the remainder of the few species yet published. I owe my specimens to my kind friend Mr. Fry, who received it together with a vast number of Coleoptera collected in Mexico by the late lamented Signore Truqui, the Italian Minister in that country, after whom I have named it.

IPSAPHES [Cucujidæ].

*Caput* obcordatum, angulis posticis haud productis, collo brevissimo. *Antennæ* moniliformes, articulo primo brevi, tertio paullo longiore.

* This name was published in October 1860. Dr. Leconte, in his 'Classification of the Coleoptera of North America,' published at Washington "May 1861—March 1862," proposed the term "*Endectus*" for the North American species.

*Mentum* transversum, subintegrum. *Palpi* articulo ultimo ovato. *Prothorax* subquadratus, lateribus denticulatis. *Tarsi* subdilatati, articulo primo majore. *Corpus* sublatum, planatum.

Allied to *Cucujus* and *Platisus*. The first it strongly resembles in habit, but differs in the normal condition of the tarsi, the ovate terminal joint of the palpi, the head not prolonged behind the eyes, the mentum nearly entire anteriorly, and the *broad, rounded* lobes of its deeply divided labium. From *Platisus* it differs in its robust habit, thicker antennæ, the third joint of which scarcely exceeds the first in length, the narrower tarsi, not dilated at the sides, and the denticulate margins of the prothorax.

*Ipsaphes mœrosus*. (Pl. III. fig. 9.)

*I.* piceo-niger, subnitidus, confertim punctatus; elytris singulis in medio obsolete bicostatis.

*Hab.* New South Wales.

Pitchy black, subnitid, especially the head and prothorax, finely and very closely punctured; head broadly obcordate, a deep transverse groove behind the eyes, the clypeus descending between the mandibles and hiding the lip; antennæ rather longer than the breadth of the prothorax, moniliform, the basal joint short, incrassated, the second short, the third scarcely longer than the first, the remainder shorter and subequal, the last ovate, pointed; eyes moderate, rounded; maxillary palpi with the terminal joint oblong-ovate, of the labial shortly ovate; maxillary lobes shortly ciliated at the extremity; mentum transverse, not produced anteriorly (the large transverse piece beneath this in the figure is the jugular plate); labium bilobed, the lobes broad, rounded; prothorax subquadrate, broader than long, rounded at the side, with four or five minute, distant teeth, the disk near the anterior angles slightly hollowed out; scutellum transverse, rounded behind; elytra plane, strongly bent down at the sides, each having on its disk two nearly obsolete elevated lines in addition to the more strongly elevated line of the suture; body beneath and legs reddish pitchy, closely punctured. Length 7 lines.

Syncemis [Cucujidæ].

*Caput* oblongo-subquadratum. *Oculi* prominuli, prothorace distantes. *Antennæ* breves, subclavatæ, articulo basali ovato incrassato. *Maxillæ* lobo interiore uncinato. *Tarsi* articulis tribus primis dilatatis, penultimo minuto. *Corpus* elongatum, parallelum, planatum.

A remarkably elongate and narrow form belonging to the subfamily *Sylvaninæ* as at present constituted, strongly illustrating the impropriety of separating *Sylvanus* from the Cucujidæ, as has been done by M. Jacquelin du Val, and of the danger of coming to con-

clusions in regard to the limits or characters of natural groups from the examination of the species of a particular region only. M. du Val excludes *Sylvanus* and the cognate genus *Nausibius* from Cucujidæ because their tarsi have not the short basal joint which the remainder of the European members of this family possess; and to this character he attaches an importance of the highest order, so that for him none others are Cucujidæ; but if we look to the well-known genus *Palæstes* (and still more to *Ipsaphes* just described), to *Platisus*, or to *Scalidia* and *Ancistria*, where the basal joint far exceeds in size and length those which follow, we shall see at once the utter futility of this character. I think, too, it shows how cautious it is necessary to be before we take what may prove to be a mere technical character for one of real natural importance. The division of the Cucujidæ according to the difference of number of the tarsal joints in the two sexes is also objectionable. *Pristoscelis**, which can scarcely be distinguished otherwise from *Pœdiacus*, is pentamerous in both, and would therefore be placed by M. du Val with *Monotominæ* †. With regard to *Synœmis*, we must, I think, for the present consider it an isolated genus. The number of these insects, which conceal themselves under bark and in the axillæ of leaves, is probably enormous. They are generally minute, and are not often sought for, and we must therefore expect to find a form turning up now and then whose affinities are uncertain. The posterior tibiæ and tarsi of *Pristoscelis* (accurately described by Mr. Wollaston, but as to the tarsus most inaccurately represented in the figure) are to a certain extent repeated in *Synœmis*; it has also the hooked inner maxillary lobe of that genus. I owe this most interesting form to Mr. Bowring, who took it in considerable abundance at Penang, in the axillæ of the leaves of a species of *Pandanus*.

*Synœmis pandani*. (Pl. III. fig. 8.)

*S.* fusco-testaceus, nitidus; prothorace vage punctato; elytris punctato-striatis.

*Hab.* Penang.

Elongate, very narrow and depressed, chestnut-brown, subnitid; head nearly plane, oblongo-subquadrate, a little broader behind the eyes, sparingly punctured; antennæ remote from the eyes, short, the basal joint thickened, as long as the next two together, the remainder

* This name has been preoccupied by Dr. Leconte for a genus of *Dasytinæ*.

† *Monotoma*, according to M. du Val, has 5-jointed tarsi, and he therefore places it with the Cucujidæ.

subtriangular, gradually enlarging to the ninth, which, with the tenth and eleventh, are of equal thickness, the latter a little pointed at the apex; eyes prominent; mentum transverse, narrowed in front, its anterior angles produced; labium slightly emarginate; maxillary lobes narrow, nearly equal in size, fringed with long hairs, the inner lobe with a strong hook at its external angle; palpi rather short, the terminal joint of the maxillary subcylindric, of the labial ovate; mandibles bifid at the apex, with a slender tooth internally; prothorax twice as long as the head, sparingly punctured, a small process at the anterior angle, posteriorly a little contracted, and at the base a curved impressed line; scutellum broadly triangular, the sides rounded; elytra about twice as long as the prothorax, punctate-striate, slightly concave between the suture and the external border, where they bend down almost at a right angle; coxæ not approximate; femora long, robust; tibiæ short, slightly curved, subtrigonate, the posterior near the extremity finely toothed at its inner edge; tarsi very short, the three basal joints dilated, the fourth minute, the claw-joint small, not longer than either of the three basal; body beneath dark brown, finely punctured. Length 3 lines.

The insect is much narrower than I have represented in the figure.

Achthosus [Tenebrionidæ].

*Caput* exsertum, clypeo producto. *Antennæ* subclavatæ, articulis 5–7 ultimis perfoliatis, transversis. *Maxillæ* lobo interiore hamato. *Tibiæ anticæ* trigonatæ, extrorsum dentatæ. *Corpus* subcylindricum.

This genus differs in a few points only from *Antimachus*, some species of which it closely resembles, except that it is more cylindrical, but from which it will be at once distinguished by the strongly serrated external margin of the fore-tibiæ. There are also remarkable differences in the mentum and labium of the species described below, and in the same parts of a species of *Antimachus* (probably *A. furcifer*, Gistl) which I examined for the purpose of comparison. But two other species, which I refer also to *Achthosus*, appear to have the more or less subcordate mentum of *Antimachus*, and therefore I have not referred to this organ in the characters of the genus. So far as my limited experience goes, it appears to me that the parts of the mouth are subject to the same variations as other organs, and, except certain differences of plan, which, however, are rather characteristic of higher groups than genera, the variation in form or outline of these organs is generally only one of degree. I believe that they are supposed to be more constant in their characters because they are seldom examined, and that one species is, as a matter of course, taken as the type of the rest. For this reason

I have generally avoided entering into details of these organs in the generic characters, reserving them for the species which alone has been examined. If I have correctly recognized the sexes, there appears to be little difference between them, at least in the species described below. This Tenebrionid is not rare in collections: Professor Westwood informs me that it stands in the Oxford Museum as *Dendroblaps Westwoodii* (Macleay). This name has not been published, I believe; and as there is a *Dendroblax* among the Lucanidæ, I have retained the generic name under which it has always stood in my cabinet.

*Achthosus Westwoodii.* (Pl. II. fig. 7.)

*A.* niger, nitidus; clypeo recurvato; prothorace antice excavato, margine supra trisinuato.

*Hab.* Australia.

Subcylindrical, deep black, shining; head a little dilated anteriorly, narrowed behind the eyes, where it forms a thick neck, the front slightly concave and somewhat finely punctured, the clypeus produced and slightly recurved; epistome very distinct, subquadrate, the lip obsolete; antennæ with the five or six last joints perfoliate, transverse, and considerably broader than the others; mentum stout and irregular, but with six nearly equal sides; labrum somewhat cordate, its palpi inserted in a cavity which is hollowed out on each side at its base; last joint of the maxillary palpi shortly triangular, of the labial obliquely ovate; prothorax slightly broader than long, strongly excavated anteriorly, and this part only thickly punctured, the border of the excavation posteriorly strongly marked and having a trisinuate outline; scutellum cordate-triangular; elytra parallel, coarsely punctate-striate, the intervals broad and nearly impunctate; body beneath black, shining; antennæ and legs chestnut; anterior and intermediate tibiæ strongly serrated externally, the posterior only very slightly so, all terminated by two or three stout spines; tarsi narrow, the claw-joint as long as the rest together. Length 10 lines.

Strongylium [Tenebrionidæ].
Kirby, Trans. Linn. Soc. xii. p. 417.

*Strongylium Macleayi.*

*S.* nigro-chalybeatum, nitidum; prothorace transverso, antice rotundato, basi angustiore; scutello nigro-cupreo; elytris subelongatis, seriato-punctatis, lateribus parallelis.

*Hab.* New South Wales.

Dark chalybeate blue, shining; head finely punctured; eyes nearly contiguous above; epistome and lip bordered with testaceous; antennæ about half the length of the elytra, the third joint much longer than the first and second together, the fourth and fifth gradually

shorter; prothorax finely punctured, much broader than long, considerably rounded at the anterior angles, the sides gradually but slightly narrowing posteriorly, a shallow fovea on each side in front; scutellum dark copper-brown; elytra seriate-punctate, the punctures coarse, rather elongate, the sides parallel for about two-thirds of their length, then slightly rounded and gradually tapering to the apex; body beneath and legs dark brown or black, with a tinge of reddish, especially on the femora; posterior tarsi with the basal joint longer than the rest together. Length 6 lines.

There are very few species of this genus described in comparison to those in collections; and none, I believe, from Australia. I do not know anything to which the one here described can be assimilated, except one from Mysol, which, however, has only a certain similarity of outline.

### Campolene [Tenebrionidæ].

*Caput* subexsertum, antice dilatatum, postice paullo constrictum. *Oculi* parvi, emarginati. *Antennæ* breves, claviformes. *Tibiæ* curvatæ, muticæ. *Prosternum* antice constrictum, postice subhorizontale, incurvato-productum. *Mesosternum* declinatum, antice triangulari excavatum.

These characters are intended to be contrasted with those of *Chariotheca* and *Titæna*, between which, I believe, this genus should be placed. The unarmed tibiæ, and the partially horizontal and then incurved posterior portion of the prosternum, terminating in a short triangular process very imperfectly received in the corresponding notch of the mesosternum, will distinguish it from the former: while in *Titæna* the anterior portion of the prosternum is so contracted that it forms a mere line in front of the two cotyloid cavities, so that the head in repose rests on the coxæ, this part has the normal form in *Campolene*. There are also other differential characters which it is not necessary to mention now. In habit *Campolene* resembles *Helops*.

### *Campolene nitida*. (Pl. II. fig. 4.)

*C.* elongato-ovata, nigra, nitida; prothorace subtiliter, elytris seriatim punctatis; pedibus rufo-ferrugineis.

*Hab.* New South Wales.

Elongate-ovate, black, shining; head finely punctured, slightly contracted behind the eyes, expanded and a little concave anteriorly, the lip nearly hidden beneath the clypeus; antennæ shorter than the prothorax, the third and fourth joints longest, the rest becoming gradually shorter, broader, and more compressed, the last largest and nearly circular; eyes small, lateral, emarginate in front; terminal joint of

the maxillary palpi securiform, of the labial narrowly triangular; prothorax finely punctured, convex, slightly transverse, rounded anteriorly and laterally, and narrowly margined; scutellum small, triangular; elytra coarsely seriate-punctate, scarcely broader at the base than the prothorax, the sides gradually rounded to the apex; body beneath with the sterna dull reddish ferruginous, the abdomen glossy black; prosternum subhorizontal posteriorly, incurved, ending in a short thick process which is only partially received in the shallow corresponding notch of the mesosternum; intercoxal process rather broadly triangular; legs reddish ferruginous, rather slender; tibiæ strongly curved, and unarmed; tarsi narrow, hairy beneath, the basal joint slightly elongate, the last shorter than the preceding united. Length 4 lines.

### Apellatus [Cistelidæ].

*Caput* antice elongatum; *oculis* magnis, reniformibus. *Antennæ* breves, articulo primo vix incrassato, tertio ad septimum subæqualibus, haud nodosis. *Tibiæ* breves, curvatæ. *Prosternum* compressum, elevatum.

The genera of Cistelidæ do not appear to be distinguished from each other by any very trenchant characters. This genus is perhaps scarcely an exception, although in colour it differs essentially from *Æthyssius** and *Tanychilus*, genera to which, on account of their long muzzle, this is the most nearly allied: from these, and especially from the latter, it is separated by its shorter antennæ, with the basal joint scarcely thickened, the nearly equal length of the third to the seventh inclusive, their subcylindrical form (not nodose at the end), the shorter and curved tibiæ, the larger and more reniform eyes, and the narrow prosternum. I only know the males.

### *Apellatus lateralis.* (Pl. II. fig. 1.)

*A.* flavo-testaceus, glaber, subnitidus; oculis vittaque elytrorum nigris.
*Hab.* New South Wales.

Fulvo-testaceous, smooth, subnitid, a stripe from the shoulder gradually widening behind, and at the apex nearly approaching the suture, and eyes black; head narrow, prolonged beyond the eyes, and rounded immediately behind them; antennæ about half as long as the

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* *Æthyssius*, proposed for *Atractus*, Lacord. (Macleay, Dejean), which name has been in common use since 1832 for a genus of Hemiptera. The name of another Heteromerous genus (*Trigonotarsus*, Hope) having been preoccupied by Guérin for a genus of Curculionidæ, I have now to propose "*Sobas*," which I have used in a MS. list of the Australian Heteromera that I have in hand. I have also in the same list adopted as a genus the division distinguished by two spurs to the anterior tibiæ, which M. Lacordaire has made in *Nacerdes*, and have named it "*Sessinia*."

body in the male (probably shorter in the female), the basal joint scarcely thickened, the second short, the third to the seventh of nearly equal length, subcylindrical, not nodose at the ends, and the remainder a little shorter and somewhat compressed (except the last, which is pointed); palpi brownish, the terminal joint of the maxillary securiform, of the labial shortly triangular; eyes large, reniform; prothorax rather longer than broad, rounded at the sides, truncate and considerably contracted in front, finely punctured, two foveæ at the base and an intermediate depression, posterior angle acute; scutellum triangular; elytra striate-punctate, much wider than the prothorax, ovate-elongate; body beneath fulvous, pubescent; prosternum narrow, elevated; mesosternum V-shaped; legs short; tibiæ slightly curved, terminating in two short spines; the two penultimate of the anterior and intermediate and the penultimate only of the posterior tarsi lamellate. Length 4 lines.

DIACALLA [Lagriidæ].

*Caput* trigonatum, ad angulum posticum productum. *Oculi* parvi, rotundati. *Labium* quadratum, membranaceum. *Palpi labiales* articulo ultimo subcylindrico. *Prothorax* late ovatus, antice constrictus. *Tibiæ* bicalcaratæ.

These characters (and there are also others) are in complete opposition to *Lagria*, with which genus only—if, perhaps, we except *Euomma*—in the four which have hitherto composed this family, is it to be assimilated. In other respects it agrees perfectly with the characters of the Lagriidæ as laid down by M. Lacordaire, except that the eyes are entire, and the labium is so thin and transparent as to be rather membranous than corneous*. The habit of the species described below is more that of a *Titæna* than a *Lagria*.

*Diacalla comata.* (Pl. II. fig. 6.)

*D.* rufo-fusca, subnitida, hirsuta, fortiter et confertim punctata; abdomine infra subrufescente.

*Hab.* Queensland.

Dark reddish brown, subnitid, closely and very coarsely punctured, with short erect greyish and black hairs, mostly arising from the punctures, covering the whole upper surface; head inclined, trigonal, enlarged behind the eyes, then suddenly contracted into a thick neck; eyes small, round; antennæ short, the two basal joints slightly thickened, the remainder to the tenth gradually diminishing in length but increasing in thickness, the eleventh more slender and as long as the two preceding together; internal maxillary lobe narrow, longer than

* Fabricius, however, says "labium membranaceum." (*Ent. Syst.* i. pars ii. p. 78.)

the outer, both densely ciliated, their palpi long, with the last joint securiform; labium thin, quadrate, fringed anteriorly, its palpi subfiliform, rather elongate, arising from near the centre of the labium; mentum subtransverse, rounded at the sides, peduncle of the jugular plate as broad as the labium; prothorax broadly ovate, constricted in front, so as to form a sort of collar; scutellum triangular; elytra much broader than the prothorax, gradually tapering behind, rounded at the apex; legs rather short, tibiæ terminated by two spines, basal joint of the anterior tarsi short, the intermediate and posterior gradually longer; body beneath slightly hairy, the abdomen with a reddish tinge. Length 5 lines.

The above description is from a female. A male which I believe belongs to this species is smaller, more hairy, the terminal joint of the antennæ much longer, and the abdomen without the reddish tinge.

GOËTYMES [Cantharidæ].

*Caput* magnum, fronte convexa; *oculis* reniformibus. *Antennæ* breves, frontales, articulo primo subtrigono, incurvato, in sulco infra oculos recepto, secundo tertioque brevibus, reliquis flabellatis. *Tibiæ* unicalcaratæ. *Tarsi* breves, unguiculis simplicibus.

The nearest ally of this genus is *Sitarida*, White, from which, *inter alia*, it differs, as it does from every other of the family, in its flabellate antennæ, which resemble *Evaniocera* in the nearly allied group of Rhipophoridæ. The difference between the antennæ of the two genera, however, requires to be more clearly contrasted. In both they are 11-jointed; but in *Sitarida* the first four are simple, while each of the remaining seven throws out laterally and at the base a short square lamina—this portion of the antenna being, in fact, pectinate. In *Goëtymes*, the first three joints only are simple, the remainder being drawn out into long laminæ, closely applied to each other at the base, and forming a compact mass when at rest. For the protection of this delicate part in repose, there is a groove beneath the eye, which receives the basal joint, and thus allows the whole antenna to be kept well under the head and breast; and this purpose is facilitated by the antenna not arising in the space formed by the emargination of the eye (which, I believe, is almost invariably the case whenever that organ is reniform or emarginate, and which is apparently so constructed for the express purpose), but below this space, and in front of the inferior portion of the eye. It may be added that the emargination above mentioned is occupied by a short, obtuse process, a simple development of the front.

*Goëtymes flavicornis.* (Pl. II. fig. 5.)

*G.* pallide fulvescens; mandibulis, prothorace, sternis femoribusque nigris; antennis flavescentibus.

*Hab.* Australia (Port Stephens).

Pale brownish fulvous, more or less clothed with short erect hairs; mandibles, prothorax, breast, and thighs black or brownish black, abdomen and antennæ pale yellow; head convex and rounded in front, covered with minute vermicular folds; epistome and lip trigonal: mandibles thick, bifid at the end, coarsely punctured at the base; palpi robust, the labial much smaller than the maxillary, the last joint in both ovate; prothorax subtrigonate, the sides slightly rounded; scutellum triangular, the apex prolonged into a short quadrate process; elytra very short, spatulate; legs robust; all the coxæ contiguous; femora and tibiæ ciliated beneath, the latter with a single spur; tarsi short, the claws simple; abdomen corneous, not contracting when dry. Length 10 lines.

The specimen described is in the British Museum. The hind tarsi are unfortunately wanting; in the figure they are assumed to resemble those of *Sitarida Hopei*. Port Stephen or Stephens is about two degrees N. of Sydney.

Cyphagogus [Brenthidæ].
Parry, Trans. Ent. Soc. v. p. 182.

*Cyphagogus advena.*

*C.* rufo-testaceus, nitidus; capite lato, breviusculo, apice emarginato; elytris striatis, striis modice punctatis.

*Hab.* Natal.

Reddish testaceous, shining; head as broad as the prothorax, but considerably shorter, finely and sparsely punctured, widely emarginate at the apex, which is bilobed on each side; eyes round, black; antennæ scarcely longer than the head; prothorax narrow, compressed anteriorly, with a few minute, scattered punctures; no visible scutellum; elytra as broad as the prothorax, deeply striated, the striæ with shallow, rather distant punctures; body beneath more coarsely punctured; legs with the posterior tibiæ not longer than the basal joint of the tarsi of the same pair. Length 3 lines.

This adds one more to the list of remarkable genera common to the Indian Islands and to Natal, yet still sufficiently distinct to form another category in this curious and very strongly marked genus. That is to say, that in its shorter head and thicker rostrum it recedes from *Cyphagogus* and approaches *Zemioses*, which, however, has legs of the more normal character.

MACROTOMA [Prionidæ].
Serville, Ann. de Soc. Ent. de Fr. i. p. 137.

*Macrotoma servilis.*

*M.* fusco-castanea, subnitida; prothorace transverso, lateribus submuticis, antice tridentatis, postice unispinosis; scutello postice rotundato; elytris connexo-punctatis, haud vermiculatis; abdomine glabrato, polito.

*Hab.* Australia (Melbourne).

Dark chestnut-brown, subnitid; head coarsely punctured; antennæ longer than half the length of the body, all the joints more or less punctured, the third nearly as long as the two next together; prothorax shortly transverse, irregularly and coarsely punctured, the middle portion of its sides straight, but gradually diverging to the base, nearly meeting, anteriorly with three teeth, posteriorly with a spine, at the base of which are two or three short teeth; scutellum rounded posteriorly; elytra much broader than the base of the prothorax, the sides slightly rounded, closely punctured, the punctures becoming coarser and more or less connected, although never vermiculate, as they approach the suture and base, this part also being darker or somewhat pitchy; abdomen and legs pale chestnut, highly polished; metasternum thinly pilose, prosternum coarsely punctured. Length 18 lines.

The only *described* Australian Prionid that approaches this is *Hermerius impar* of Newman, which, *inter alia*, differs in its hairy prothorax and the thick mass of woolly pubescence which clothes the abdomen. I have not adopted the genus, however, from the impossibility of seeing how it is to be separated from some forms of *Macrotoma*. There are several undescribed species from Australia, differing from each other in a not very tangible manner, but mostly having the sides of the prothorax more denticulate. I fear, however, that the amount of denticulation is very often, in this family, a character varying according to the individual. In the specimen just described, the two posterior teeth of the anterior angle of the prothorax are distinctly bifid on the right side, but are entire on the left. So in Mr. Newman's genus *Cnemoplites**, the teeth on the protibiæ, in a specimen of an undescribed species in the British Museum, are five on one side, and three on the other; in an allied species the intermediate tibiæ are also toothed, and in my *Mallodon figuratum* all the tibiæ. The Prionidæ, as they are constituted at present, appear to be a very unsatisfactory family, containing several anomalous genera, and others which are extremely difficult to limit.

* Mr. Newman describes *Cnemoplites* thus: "*Protibiis excurvatis, extus spinosis*" (Entom. p. 351); and, in addition to *C. edulis* (unknown to me), refers to it *Prionus spinicollis*, Macleay, which has *all* the tibiæ spined, and which I cannot separate from *Macrotoma*. It is, in fact, very near my *Macrotoma gemella*.

One of these, *Neostenus* (Trans. Ent. Soc. ser. 2, iv. p. 91), on account of the position of the anterior coxæ, I am disposed to place with the Cerambycidæ, perhaps not far from *Bimia*. This last, also, is a very isolated genus.

Obrida [Cerambycidæ].
White, Stokes's Voyage, App. i. p. 510.

*Obrida comata.*

*O.* nigro-chalybeata, sparse griseo-pubescens, hirsuta; elytris singulis macula magna mediana flava.

*Hab.* Queensland.

Very dark steel-blue, lightly covered with a pale greyish pubescence, with scattered, erect, stiffish hairs interspersed; head and prothorax roughly and closely punctured, the anterior and posterior margins of the latter of nearly equal breadth; scutellum triangular, covered with long silky hairs; elytra short, broader than the prothorax, the sides parallel, each furnished with two not very prominent costæ, and in the middle a large transverse yellow spot not attaining the margin or the suture; body beneath shining steel-blue, sparingly punctured with a few scattered hairs; legs more or less hairy, the femora shining steel-blue, base of the posterior testaceous; tarsi rufous brown; antennæ entirely black, about two-thirds the length of the body. Length 4 lines.

Perfectly homogeneous with *Obrida fascialis*, but broader and more robust, with the antennæ and legs entirely black (except the base of the posterior femora), and the broad orange band on the elytra of the former replaced by two pale-yellow patches; it is also more pubescent, furnished with long scattered hairs.

Pyrestes [Cerambycidæ].
Pascoe, Trans. Ent. Soc. ser. 2, iv. p. 96.

*Pyrestes cardinalis.*

*P.* ruber, nitidus; scutello, pedibus corporeque infra nigris.

*Hab.* Hong Kong.

Dark red, brighter on the elytra, shining, with a pubescence consisting of a few short black hairs, but more numerous on the prothorax; head dark brownish-red, thickly punctured; antennæ dark brown, the basal joints coral-red, except at their extremities; eyes black; prothorax about half as long again as broad, rugosely punctured, the punctures large and irregular; scutellum narrowly triangular, black; elytra dark blood-red, coarsely and deeply punctured at the base, but gradually more scattered and shallower towards the apex; legs black, covered with short stiff fulvous hairs; body beneath black, shining, moderately punctured, slightly hairy. Length 7 lines.

In 1857 I briefly characterized this genus, at the same time describing three species, all Asiatic. I do not see that I can add anything really essential to those characters now. The genus is a very natural one, and is allied to *Erythrus*, but with an ovate-elongate or almost subcylindrical prothorax; elytra slightly contracted in the middle, much more convex, and with a broad emargination externally near the shoulder. The palpi also are longer and more unequal. The antennæ vary in length, but are longest in the males, although scarcely so long as the body. The pro- and mesosterna are simple. Professor Westwood has given an excellent figure of *Pyrestes eximius* in the work above quoted (pl. 22. fig. 3).

ERYTHRUS [Cerambycidæ].
White, Cat. Col. Ins. Brit. Mus. Longicornia, p. 142.

*Erythrus congruus.*

*E.* niger; prothorace elytrisque coccineis, illo nigro sex-maculato et medio breviter carinato.

*Hab.* Hong Kong.

Slightly depressed, irregularly and closely punctured, black; prothorax and elytra bright scarlet, the former nearly equal in length and breadth, with six black spots, four on the disk and one on each side, the middle with a short elevated line; scutellum transverse; elytra moderately long, an elevated carina running from each shoulder to near the apex, which is rounded with its edges minutely serrated; body beneath entirely black, very closely and irregularly punctured; legs black, tarsi of the intermediate pair longer than their tibiæ. Length 9 lines.

From *Saperda*? *bicolor*, Westw., this insect differs in being *entirely* black beneath, in its six-spotted prothorax with a short elevated line in its middle, in the more decidedly elevated and longitudinal carina which occurs on each elytron, and in the general vitreous sort of transparency which in certain lights and under a strong lens glistens over its surface, especially on the elevated lines of the prothorax and elytra. It will serve to show the uncertainty of characters generally thought to be of generic value among the Longicorn families that, notwithstanding the close affinity of these two *Erythri*, amounting at the first glance almost to identity, the one, *E. bicolor*, has the epistome very distinct, while in the other it is apparently wanting. *Erythrus Fortunei*, White (the only other *Erythrus* having the head black), is a narrower and smaller species, with a longer prothorax and darker colour.

*Erythrus? Bowringii.*

*E.*? angustatus, rubro-sericeus; prothorace ovato, medio carinato; elytris elongatis, apice truncatis; corpore infra nigro, griseo-pubescente.

*Hab.* Hong Kong.

Narrow and elongate, brick-red, covered with a fine silky pubescence; head roughly punctured, the muzzle rather short; antennæ black, longer than the body in the male, about three-quarters of its length in the female, the serration beginning with the fourth joint; prothorax ovate, a long linear carina in the middle, two black spots anteriorly on the disk, marking the nearly obsolete tubercles; scutellum triangular; elytra elongate, scarcely wider than the prothorax, the sides incurved and expanding very slightly posteriorly, the apex truncate, a broadly elevated line extending from the shoulder to near the apex; body beneath black, closely covered with a short greyish-white pubescence; legs black, slightly pubescent, femora of the intermediate pair produced beneath, and fringed at the deepest part of the border with short stiff hairs. Length (♂) 9, (♀) 11 lines.

This species rather breaks in upon the homogeneity of *Erythrus*, but I scarcely see sufficient characters to warrant its separation as a distinct genus. The narrow form, the ovate prothorax, and the serrated portion of the antennæ beginning at the fourth joint instead of the fifth, seem to be the most distinctive points. The muzzle is also somewhat shorter and the palpi longer, but I think it would be difficult to formulate a satisfactory diagnosis on these. The peculiarity of the intermediate femora is less marked in the female. I am indebted for this and the two preceding species, and indeed for many others, to John Bowring, Esq.

Polyzonus [Cerambycidæ].

Laporte de Castelnau, Hist. Nat. des Ins. Coléop. ii. p. 438.

*Polyzonus pubicollis.*

*P.* obscure niger; prothorace subcylindrico, aureo-pubescente; elytris luteis, fasciis tribus, postica subapicali suturam non attingente, nigris.

*Hab.* Natal.

Dull black; head coarsely punctured, with a few scattered yellowish hairs; epistome very short, lip narrow, bordered with stiff yellowish hairs; prothorax short, subcylindrical, slightly narrowed behind, closely and coarsely punctured, and covered with a golden-yellow pile; scutellum acutely triangular; elytra very finely and closely punctured, sparsely pubescent, luteous yellow, a black band near the base, a second at the middle, and a third towards the apex, but which does not attain to the suture; body beneath black, more or less covered with a silvery-grey pile, the last abdominal segment extending beyond the elytra; legs black, more or less pubescent; femora scarcely clavate, the posterior

not at all; tibiæ short, the distal extremity of the posterior scarcely reaching to the end of the abdomen; antennæ black, the basal joints with a slight pubescence. Length 9 lines.

Of the two species of *Promeces* mentioned by Serville, one, the *Saperda clavicornis* of Fabricius, is a *Polyzonus*. The error is the more remarkable, as he has perfectly well distinguished *Promeces* by the setaceous, twelve-jointed antennæ of the males. *Polyzonus clavicornis*, a common Cape insect, on the contrary, has the antennæ claviform and eleven-jointed in both sexes. The Comte de Castelnau has failed to notice any peculiarity in the antennæ either of *Promeces* or *Polyzonus*, and is apparently ignorant of the females of the former, since he ascribes filiform antennæ to both sexes, the fact being that they are *setaceous*, not *filiform*, in the males and clavicorn in the females. With regard to *Polyzonus*, the species described above is remarkable for its subcylindrical prothorax rather closely covered with a short decumbent pile, and is distinguished from all others of the genus known to me by the yellow apex of the elytra.

*Polyzonus scalaris* (Dej.).

*P.* angustus, chalybeatus; prothorace breviter subovato, rugoso-punctato; elytris luteis, fasciis tribus latis chalybeatis.

*Hab.* Cape of Good Hope.

Narrow, dark steel-blue; head coarsely punctured, epistome very short, lip large, broader anteriorly, scarcely emarginate, eyes black; prothorax shortly subovate, very roughly punctured, scarcely pubescent; scutellum narrowly triangular; elytra strongly and closely punctured, luteous yellow, with three broad dark chalybeate bands, the first towards the base, the second in the middle, the third apical; body beneath steel-blue, with a silvery-grey pubescence; legs steel-blue, femora of the anterior and intermediate pairs only moderately clavate; antennæ very dark steel-blue. Length 7 lines.

In the disposition of the bands on the elytra this species comes nearest *Polyzonus Mellyi*, White, but is smaller, narrower, with a more ovate prothorax, which is scarcely or not at all pubescent, and with very much broader bands on the elytra. I believe it to have been hitherto unpublished.

Promeces [Cerambycidæ].
Serville, Ann. de Soc. Ent. de Fr. iii. p. 27.

*Promeces viridis* (Dej.).

*P.* viridi-cæruleus, corrugatus; prothorace brevi, lateribus irregulariter rotundatis; femoribus posticis subclavatis.

*Hab.* Natal.

Dark greenish blue, the whole upper surface finely corrugated; head coarsely punctured in front, epistome dark brown, shining, lip rounded, covered with greyish hairs, eyes black; prothorax scarcely longer than broad, irregularly rounded at the sides; scutellum triangular, very concave; elytra nearly parallel, without raised lines; body beneath shining chalybeate blue, sparsely pubescent; femora blue, the posterior very slightly clavate; tibiæ and tarsi blue, covered with short stiff hairs, claws reddish testaceous; antennæ blue, the basal joint coarsely punctured, the last four joints in the female very short and thick. Length 5 lines.

This long-known species has not, so far as I know, been hitherto described. It may be at once distinguished from its congeners by its short and corrugated prothorax; but, like the others, its colour is more decidedly blue than green.

Apodasya [Lamiidæ].

*Caput* parvum, verticale; *oculis* emarginatis. *Antennæ* pilosæ, articulo basali subcylindrico, tertio longissimo, cæteris brevissimis. *Prothorax* gibbosus, subquadratus, lateraliter spinosus. *Elytra* parallela. *Tarsi* breves. *Pro-* et *mesosternum* simplicia, acetabula antica angulata. *Corpus* subelongatum.

*Chætosoma pilosum* of Dejean's Catalogue is the type of this genus, but as the generic name has been used for one of the Cucujidæ, it is necessary to substitute another. In the above work it was placed between *Desmiphora* and *Cloniocerus*, but it appears to me to be more nearly related to *Hebestola*. It is not mentioned by M. James Thomson in his 'Essai,' &c.; indeed it seems to be a very scarce insect, only to be seen in a few old collections. My specimen is from the collection of Mr. Waterhouse.

*Apodasya pilosa.*

*A.* ferruginea, grisescente-pubescens, pilis longis albis nigrisque tecta; prothorace disco nigro; antennis pedibusque infuscatis.

*Hab.* South Africa.

Ferruginous, covered with a very fine greyish pubescence, and with long erect white hairs mingled with black; head rather small; epistome and lip very distinct, the latter rounded anteriorly; palpi pointed; eyes deeply emarginate; antennæ very hairy, arising from two diverging tubercles, shorter than the body, the basal joint subcylindrical, the third as long as the rest together, a dense fascicle of black hairs enveloping the fourth joint and apex of the third; prothorax short, irregularly gibbous, a strong tooth on each side posteriorly, the disk with a large black spot; scutellum very small, black; elytra parallel, elongate, broader than the prothorax, very coarsely punctured; body beneath yellowish ferruginous, the sides of the metathorax and base of the abdomen brown; legs brownish. Length 5 lines.

### Aproïda [Hispidæ].

*Caput* pone oculos subelongatum; fronte brevi, verticali; clypeo bilobato, labrum occultante. *Oculi* ovati. *Palpi maxillares* articulis ultimis duobus globosis. *Palpi labiales* articulis ultimis oblongo-ovatis. *Mentum* quadratum. *Antennæ* filiformes, super tuberculis inter oculos insertæ, articulis duobus basalibus brevibus, primo incrassato, cæteris brevioribus, ultimo paullo longiore apice appendiculato. *Prothorax* quadrilateralis, postice latior. *Elytra* deplanata, subtrigona, thorace latiora, apice caudata. *Pedes* breves; *femoribus anticis* incrassatis, dentatis; *tibiis* ejusdem curvatis, introrsum bispinosis. *Corpus* subplanatum.

This is probably the most remarkable genus of the Hispidæ, wholly distinct in habit from any other known species, although most nearly related to *Eurispa*. The prolongation of the head behind the eyes, the size and figure of the anterior femora, the two formidable teeth on the protibiæ (as is also the case in some Cephalodontæ), and trigonate outline of the elytra terminating in two thick spines, combine to produce a form that, taken in conjunction with the congeners of its own family, renders it one of the most striking of the Australian Coleoptera. The parts of the mouth can only be described as they are seen *in situ*, and these are the more difficult to distinguish as they are placed in a deep cavity formed by the mandibles in front, and by the jugular plate, bent down at a right angle, behind; it may be also noticed that the angle itself is bordered by an elevated, narrow ridge. I am indebted to Mr. Baly, who is so well known for his Monograph of this family and for his knowledge of the Phytophagous groups in general, for his assistance in this examination; he is satisfied of the existence of a small square mentum which is attached to the anterior edge of the reflected portion of the jugular plate, and that the last two joints of the maxillary palpi are together of a globose form, and those of the labial oblong-ovate.

### *Aproïda Balyi*. (Pl. II. fig. 8.)

*A.* flavescens, vitta fusco-purpurea ab oculis ad apicem elytrorum ornata; antennis fusco-purpureis, articulis duobus ultimis albis.

*Hab.* Queensland.

Fulvous, on the elytra inclining to lemon-yellow, a dark-purple line extending from the eye to the apex of the latter; head coarsely punctured, elongate behind, the front vertical, with a tubercle before each eye, bearing the antennæ; eyes ovate, prominent; antennæ about half the length of the body, dark chestnut-brown, the last two joints pale straw-yellow, the basal joint short, incrassate, the second about the same length as the first, the remainder longer, cylindrical, the last terminated by a small hooked appendage; prothorax quadrilateral,

broader behind, bulging at the sides, the disk concave near the base and very coarsely punctured; scutellum subtriangular; elytra trigonate, depressed, covered with large rough punctures, broadest at the shoulders, where they considerably exceed the prothorax, gradually contracting towards the apex, and terminating on each side in a stout diverging spine, which is considerably strengthened by a short raised line or rib which connects it with the rest of the elytron; body beneath saffron-yellow, nearly impunctate; mouth, mandibles, and palpi dark brown; the intermediate and posterior legs short, the anterior much longer; femora clavate, with a large obtuse tooth beneath, except the posterior; anterior tibiæ slender, curved, dilated at the apex, with two acute teeth on the inner side. Length 6 lines.

## EXPLANATION OF THE PLATES.

### Plate II.

Fig. 1. *Apellatus lateralis.*
„ 2. *Diatelium Wallacei.*
„ 3. *Clidicus formicarius.*
„ 4. *Campolene nitida.*
„ 5. *Goëtymes flavicornis.*
„ 6. *Diacalla comata.*
„ 7. *Achthosus Westwoodii.*
„ 8. *Aproïda Balyi.*
„ 9. *Petalophora brevimana.*

### Plate III.

Fig. 1. *Crine cephalotes.*
Fig. 2. *Metopiestes hirtifrons.*
„ 3. *Temesia Batesii**.
„ 4. *Illestus terrenus.*
„ 5. *Narcisa decidua.*
„ 6. *Phormesa lunaris.*
„ 7. *Dastarcus confinis* (trophi).
„ 8. *Synœmis pandani.*
„ 9. *Ipsaphes mœrosus.*
„ 10. *Nematidium mustela.*
„ 11. *Bothrideres? rhysodoides.*
„ 12. *Bothrideres? nocturnus.*
„ 13. *Machlotes porcatus.*

* The description of this insect will be given in a future Part.

# JOURNAL OF ENTOMOLOGY.

No. VIII.—April 1863.

## VI.—*Contributions to the Knowledge of the* Cicindelidæ *of Tropical Asia, containing Descriptions of new Species, a List of those hitherto described, and Synonymical Notes.* By Dr. H. Schaum.

### 1. *Cicindela lacrymans.*

*C.* supra viridi-cuprea; labro nigro, basi albo; prothorace cylindrico; elytris elongatis, viridi-purpureis, puncto humerali, vitta e basi exoriente abbreviata maculisque tribus vittam continuantibus albis.—Long. 8 lin.

*Habitat* in insula Ceylon (*D. Nietner*).

Labrum nigrum, basi album, apice dentibus quinque parvis munitum. Mandibulæ basi testaceæ. Palpi testacei, articulis ultimis cupreis. Caput supra viridi-cupreum, juxta oculos utrinque subtiliter striatum, subtus cyaneum. Prothorax cylindricus, capitis, oculis exceptis, latitudine, subcupreus, impressionibus transversis parum profundis viridibus, episternis cupreis. Scutellum cupreum. Elytra viridi-purpurea, elongata, parallela, margine postico serrato, sutura dente minuto vix conspicuo, puncto humerali, vitta a media basi exeunte, in tertia elytri parte abbreviata maculisque tribus albis vittam continuantibus, a sutura et margine æqualiter remotis, prima vittam fere attingente, ultima ante apicem albis. Pectus subtus, præsertim lateribus, cupreum, abdomine violaceo. Femora cuprea; tibiæ tarsique magis violacea.

I have adopted for this beautiful species, which belongs to Dejean's fifth section of the genus, the name applied to it in the Museum of Berlin.

### 2. *Cicindela araneipes.*

*C.* cuprea; capite plano, utrinque juxta oculum puncto majore notato; prothorace versus apicem angustato; elytris albis, sutura, strigis duabus longis antice connexis strigaque brevi anteriore cupreis; pedibus tenuibus, longissimis.—Long. 4 lin.

*Habitat* in insula Borneo (*D. Wallace*).

Species hæc e numero earum quæ genus *Habroscelis*, Hope, constituunt (v. infra).

*C. tenuipedi* Dej. similis, sed minor et elytris aliter signatis. Labrum album, dente medio minuto. Mandibulæ elongatæ, graciles, acutæ, albidæ, apice dentibusque nigro- vel viridi-æneis. Palpi toti albidi. Antennæ articulis quatuor basalibus viridi-æneis, reliquis rufo-testaceis. Caput cupreum, planum, fronte, strigis nonnullis pone oculos exceptis, fere lævigatum, utrinque in oculi sinu puncto majore notatum. Oculi supra parum, sed lateribus satis prominentes. Prothorax cupreus, trapezoideus, basi multo latior quam apice, angulis posticis acutis, lateribus et medio subtilissime transversim strigosus, sulcis transversis profundis, linea media subtili. Scutellum cupreum. Coleoptera basi thoracis basi vix latiora, elongata, postice non dilatata, apice oblique truncato, margine serrato, sutura denticulata, supra albida, fortiter punctata, punctis basi subtilioribus, sutura pone scutellum dilatata, in utroque strigis duabus ante medium incipientibus, apicem fere attingentibus, antice confluentibus, ut reversæ literæ V valde elongatæ forma fere efficiatur, strigaque brevi anteriore, fortius punctata, cupreis. Subtus viridis, metallica, lateribus thoracis albo villosis, ano rufescente. Pedes longissimi, gracillimi, viridi-æneï, trochanteribus tibiarumque basi testaceis.

### 3. *Cicindela punctatissima.*

*C.* viridi-cuprea; capite subplano, utrinque juxta oculum puncto majore notato; prothorace subquadrato, apice vix angustiore; elytris punctatissimis, limbo dentato, ramo descendente vittulaque basi connexa albis. —Long. 5–5½ lin.

*Habitat* in China prope Amoy (*W. W. Saunders* dedit).

Etiam hæc species e numero earum quæ genus *Habroscelis*, Hope, constituunt.

Labrum album, apice dentibus tribus parvis, medio majore. Mandibulæ testaceæ, apice elongato dentibusque metallicis. Palpi albidi, articulo ultimo apice æneo. Antennæ apice fuscæ. Caput viridi-cupreum, fere planum, subtiliter intra oculos striatum, puncto majore utrinque in oculi sinu impresso. Oculi magni, lateribus valde sed supra parum prominentes. Prothorax viridi-cupreus, subquadratus, basi parum latior quam apice, sulcis transversis profundis, linea media subtiliore, basi pone angulos posticos distincte marginata. Scutellum cupreum. Elytra pone medium sublatiora, apice valde oblique truncata, margine postico serrato, punctatissimo, viridi-cuprea, limbo basi juxta scutellum incipiente ibique cum vittula suturæ parallela, in quintam elytri partem abbreviata connexo, extus pone humerum emarginato, ramo ante tertiam elytri partem e limbo exoriente, qui paulo infra vittulam baseos fractus versus apicem descendit et prope suturam in medio dimidii posterioris desinit, atque dente prope angulum posteriorem cum limbo connexo albis. Subtus viridi-ænea, ano rufescente. Pedes modice elongati (ut in *C. ancorali*), viridi-æneï, trochanteribus tibiarumque basi rufo-testaceis.

4. *Cicindela craspedota.*

*C.* supra subcuprea, subtus cyanea; labro flavo, unidentato; elytris extus anguste viridibus limbo chalybeo, guttis duabus flavis, prima majore.—Long. 4–4⅓ lin.

*Habitat* in insula Celebes (Menado) (*D. Wallace*).

Statura speciebus nonnullis e stirpe *Euryoda* (*C. tetrastactæ* Wied.) assimilis. Labrum flavum, breviusculum, antice dente medio unico parvo instructum, supra medio subcarinatum, carina subcuprea. Mandibulæ viridi-æneæ, basi testaceæ. Palpi testacei, maxillares articulis duobus ultimis, labiales ultimo viridi-æneis. Antennæ apice fuscæ. Caput supra viridi-æneum, fronte media cuprea juxta oculos sat regulariter striata, subtus cyaneum. Prothorax dorso cupreus, sulcis transversis viridi-cyaneis, subtus præsertim lateribus cyaneus, latitudine brevior, subcylindricus, linea media subtilissima. Scutellum cupreum. Coleoptera prothorace plus duplo longiora, subcylindrica, postice parum latiora, punctulata, dorso subcuprea, parum micantia, extus anguste viridia, chalybeo limbata, macula media alteraque minore ante apicem a margine distantibus in utroque flavis. Pectus et abdomen cyanea; pedes cyanei, femoribus cupreo-aureis.

5. *Cicindela discreta.*

*C.* supra viridi-fusca, opaca; labro flavo, unidentato; elytris punctis quinque vel quatuor discretis flavidis, primo humerali.—Long. 4 lin.

*Habitat* in insula Celebes (Menado) (*D. Wallace*).

*C. minuta* Fabr. (*pumila*, Dej.) paulo major et in elytris magis dilatata, supra viridi-fusca, opaca, capite prothoraceque vix nitidioribus. Labrum breviusculum, flavum, apice dente medio parvo instructum. Mandibulæ basi testaceæ, apice viridi-æneæ. Palpi testacei, maxillares articulis duobus ultimis, labiales ultimo viridi-æneis. Antennæ apice fuscæ. Caput juxta oculos crebre subtiliter striatum. Prothorax latitudine parum brevior, subquadratus, sulco transverso anteriore fere obsoleto, posteriore magis distincto, fovea utrinque profundiore terminato, subtilissime granulato-rugulosus, rugis apice distinctioribus. Elytra prothorace plus duplo longiora, medio subdilatata, apicem versus attenuata, apice ipso rotundato, margine postico subtilissime serrato, subtiliter punctata, punctis quinque stramineis, primo humerali, secundo a margine subremoto in loco quo lunula humeralis si adesset desineret, tertio marginali quartoque discoidali mediis, quinto ante apicem, in loco quo lunula apicalis desineret, posito, hoc nonnunquam deficiente. Corpus subtus viridi-æneum, subcyanescens, prothoracis lateribus glabris. Pedes viridi-ænei. Fœmina plaga minuta vix conspicua ante medium elytrorum.

6. *Cicindela foveolata.*

*C.* supra nigra, subtus cyanea; labro albo, apice fusco; prothorace dorso rugoso; coleopteris sparsim punctatis et foveolatis, foveolis juxta suturam subseriatis.—Long. 3¾ lin.

*Habitat* in insula Celebes (*D. Wallace*).

Sculptura ab omnibus speciebus notis distincta. Supra nigra, nitidula, subtus cyanea, thoracis lateribus aureo micantibus. Labrum majusculum, antrorsum angustato-rotundatum, album, apice fuscum, dente medio minuto vix conspicuo. Palpi testacei, maxillares articulis duobus ultimis, labiales ultimo fusco-æneis. Antennæ fuscæ. Caput granulatum, juxta oculos modice prominentes crebre rugoso-striatum. Prothorax latitudine non brevior, subcylindricus, lateribus granulatus, disco rugosus, rugis oblique versus lineam mediam directis, sulcis transversis medio subtilibus, extus utrinque magis profundis, quasi in foveolam dilatatis, limbo tenui chalybeo. Coleoptera prothorace plus duplo longiora, subcylindrica, margine integro, lateribus minus crebre punctata, dorso foveolis et impressionibus oblongis parum profundis inæqualia, foveolis sex satis distinctis secundum suturam subseriatim dispositis, posticis quatuor magis approximatis. Pedes ænei.

### 7. *Cicindela pupillata.*

*C.* viridi-fusca; labro albo, apice denticulato; prothorace subcylindrico; elytris viridi pupillatis, margine tenui bis interrupto hamoque parvo cum margine connexo albis; pedibus pallidis, femorum tibiarumque apice et tarsis violaceis.—Long. $3\frac{3}{4}$ lin.

*Habitat* in insula Mysol (*D. Wallace*).

Labrum album, majusculum, antice angustato-rotundatum, dente medio minuto. Palpi testacei, maxillares articulis duobus ultimis, labiales ultimo nigro-æneis. Caput fusco-viridi-æneum, juxta oculos fortiter striatum. Antennæ setaceæ, extus fuscæ. Prothorax latitudine non brevior, subcylindricus, antice posticeque sulco constrictus, fusco-viridi-æneus, fere lævis, linea media obliterata. Elytra prothorace plus duplo longiora, parallela, postice oblique attenuata, apice ipso truncato, margine integro, supra parum convexa, viridi-fusca, maculis ocellatis viridibus, punctum impressum cyaneum ut pupillam includentibus præsertim postice discretis, medio confluentibus, margine tenui pone humerum et ante apicem late interrupto hamoque parvo e medio margine exeunte albis. Corpus subtus cupreo-æneum, abdomine cyaneo. Pedes pallidi, femoribus, tibiis articulisque tarsorum apice violaceis.

### 8. *Cicindela placida.*

*C.* cyanea, labro concolore; elytris dorso nigro variegatis, lunula tenui humerali, linea transversa media punctoque postico albis; antennarum basi pedibusque testaceis cyaneo indutis.—Long. $3\frac{1}{2}$ lin.

*Habitat* in insula Mysol (*D. Wallace*).

Species parva sed valde jucunda. Labrum magnum, cyaneum, antrorsum angustatum, apice subtruncatum. Mandibulæ testaceæ, apice fuscæ. Palpi testacei, articulo ultimo cyaneo. Antennæ articulis quatuor basalibus testaceis cyaneo indutis, reliquis fuscis. Caput cyaneum, opacum, fronte inter oculos fortiter longitudinaliter striata. Prothorax cyaneus, opacus, dorso nonnunquam obsolete nigro varie-

gatus, latitudine brevior, lateribus rotundatus, supra subconvexus, apice et basi sulco transverso constrictus, basi paulo angustior quam apice, linea media obliterata. Elytra prothorace duplo longiora, fere parallela, postice sensim attenuata, margine integro, cyanea, præsertim antice punctata, dorso secundum suturam nigro variegata, signaturis parum conspicuis, lunula tenui humerali, linea transversa vix arcuata punctoque posticq nonnunquam ad marginem extenso et tunc cornu superius lunulæ apicalis simulante albis. Subtus cyanea, nitida. Pedes infra testacei, supra cyaneo induti, tibiarum apice tarsisque cyaneis.

### 9. *Tricondyla nematodes.* (Pl. IV. fig. 1.)

*T.* virescenti-ænea; antennis basi pedibusque rufo-testaceis; prothorace subconico, transversim strigoso; coleopteris elongatis, subcylindricis, transversim rugosis.—Long. $6\frac{1}{2}$ lin.

*Habitat* in insula Ceylon (*D. Nietner*).

Species insignis forma extensa angusta cylindriformi, elytris postice non inflatis, ad sectionem *Derocraniam* Chaud. pertinet, quarum species Ceylonenses capite postice attenuato, ut in *Collyridibus* basi strangulato, menti lobis lateralibus in spinam deorsum directam productis instructæ sunt. Corpus virescenti-æneum. Caput lævigatum, fronte excavata, argute bisulcata. Antennæ basi, articulis duobus primis exceptis, rufo-testaceæ, apicem versus magis fuscæ. Prothorax latitudine plus duplo longior, subconicus, basi apiceque modice constrictus, supra crebre et regulariter transversim strigosus. Coleoptera elongata, angusta, subcylindrica, pone medium vix dilatata nec altiora, apicem versus sensim subangustata, apice emarginata, undique transversim rugosa, rugis versus apicem minus distinctis. Pedes rufo-testacei, tarsis magis fuscis.

### 10. *Collyris plicata.*

*C.* cyanea; fronte postice convexa; elytris subvirescentibus, medio in plicam transversam elevatis, lateribus pone plicam fortiter, ceterum parce subtiliter punctatis.—Long. 9 lin.

*Habitat* in insulis Philippinis.

*C. acroliæ* Chaud. statura et magnitudine similis, fronte postice tumidula et plica media elytrorum transversa valde distincta. Cyanea, elytris subvirescentibus. Caput postice valde convexum, fere tumidulum, fronte nonnisi in parte anteriore declivi excavata, totum lævigatum. Antennæ articulo tertio quartoque apice rufis. Prothorax basi sat fortiter constrictus, postice lævigatus, antice obsolete transversim strigosus. Coleoptera plica transversa a medio usque ad suturam extensa valde elevata, extus in rugas duas dissoluta, ante plicam et rugas parce subtiliter punctata, lateribus pone rugam subimpressis fortiter et sat crebre punctata, in parte posteriore punctis sparsis minutissimis obsita. Femora rufa, cyaneo induta.

11. *Collyris speciosa.*

*C.* cyaneo-violacea; fronte postice excavata; elytris basi posticeque punctatis, medio transversim rugosis; femoribus rufis.—Long. 10 lin.

*Habitat* in insulis Philippinis.

*Coll. acroliæ* Chaud. iterum affinis, fronte postice magis excavata, elytris basi apiceque sat fortiter punctatis, medio multo minus fortiter sed in spatio majore transversim rugosis, femoribus dilutius rufis abunde distincta. Corpus cyaneo-violaceum. Caput usque pone oculos valde excavatum, excavatione postice latiore. Antennæ articulo tertio quartoque apice rufis. Prothorax basi modice constrictus, supra obsolete transversim strigosus. Coleoptera basi et postice sat crebre punctata, punctis apice ipso evanescentibus, medio irregulariter transversim rugosa. Pectus albo villosum. Femora rufa.

Besides *C. plicata* and *C. speciosa*, there are two more Philippine species of *Collyris* described: *Coll. acrolia*, Chaud. Bull. d. Mosc. iv. 1860, a large and beautiful species, described by Chaudoir as blackish, but as being, in a fresh state, of a bluish green colour like *C. plicata*; and *Coll. albitarsis*, Er. (*femorata*, Westw.), a small species, which varies, independently of the sex, in the colour of the posterior legs (v. Chaud. Berl. Zeitschr. 1861, p. 399).

Synonymical Notes.

1. *Cicindela latipennis*, Parry, Trans. Ent. Soc. iv. p. 84 = *C. angulata*, Herbst, Dej.
2. *C. Prinseppii*, Saund. Trans. Ent. Soc. i. p. 64, sec. typum = *C. minuta*, Fabr. (*pumila*, Dej.). The figure in the Transactions is very inaccurate.
3. *C. Gyllenhalii*, Dej., and *C. limosa*, Saund. l. c., which have been considered as identical, are distinct species. In the former the elytra are entirely shining in the female and the sides of the thorax rounded; in the latter the elytra are opake, with only a shining spot in the female, and the sides of the thorax nearly straight.
4. *C. funerea*, MacLeay (Ann. Jav.), sec. typum = *C. marginepunctata*, Dej. A second specimen in the East India Cabinet, standing as *funerea*, is = *C. undulata*, Dej.; but MacLeay's description only refers to *C. marginepunctata*.
5. *C. tremebunda*, MacLeay (Ann. Jav.). The type specimen in the East India Cabinet is probably a small variety of *C. Sumatrensis*, Herbst.
6. *C. aurovittata*, Brullé (Arch. du Mus. i. pl. 8. fig. 3) = *C. sexpunctata*, Fabr., var.

7. *C. erythropus*, Brullé (l. c. pl. 9. fig. 2), = *C. erudita*, Wiedem. (Zool. Mag. ii. p. 1).
8. *C. triramosa*, Kollar (Ann. d. Wien. Mus. i. p. 330), is, sec. typum, also = *C. erudita*, Wied. (*chloropus*, Brullé).
9. *C. insularis*, Blanch. (Voy. au Pôle Sud), from the Philippine Islands, = *C. lacrymosa*, Dej.
10. *C. grammophora*, Chaud. (Bull. d. Mosc. 1850), is in all probability = *C. cognata*, Wiedem. (Zool. Mag. ii.).

*List of described Species of* Cicindela *from Tropical Asia.*

The numerous species may be divided into several sections, the three first of which are well defined, and contain only allied species, while the fourth is polymorphous, embracing species of very different shape; it cannot, however, be divided, as numerous and insensible passages connect even the forms which appear at first most different.

I. *Sutures by which the episterna of the prothorax are united to its dorsum visible on the back of the prothorax.*

Sect. I. *Hypætha*, LeConte (Revision of American Cicindelidæ, Trans. Amer. Philos. Soc. xi. p. 28).

1. *C. quadrilineata*, Fabr., Dej., and, 2. *C. biramosa*, Fabr., Dej., are the only known species of this group.

II. *Sutures of the episterna of the prothorax with its dorsum visible on the under surface.*

A. *Labrum with five or seven teeth.*

Sect. II. *Prothorax et coleoptera cylindrica. Labrum septem- vel quinquedentatum.* Divisio III., Dej. *Euryoda*, Lac. *Heptadonta*, Hope. *Ænictomorpha* et *Odontocheila*, p., Chaud.

The species of this group are:—

3. *C. Hopei*, Parry (Trans. Ent. Soc. iv. p. 84).—Assam.
4. *C. analis*, Fabr., Dej.—Java and Borneo.
5. *C. posticalis*, White (Ann. of Nat. Hist. xiv.).—Hong Kong.
6. *C. variipes*, Chaud. (Bull. Mosc. 1850).—India bor. Unknown to me.
7. *C. melanopyga*, Schaum (Berl. Zeitschr. 1862, p. 173).—Manilla.
8. *C. patricia*, Schaum (l. c. 1861, p. 68).—Celebes (Menado).
9. *C. quadripunctata*, Fabr., Dej.—Java.
10. *C. proxima*, Chaud. (Bull. Mosc. 1860).—India bor.

11. *C. tetrastacta*, Wiedem. (Zool. Mag. ii. p. 1)=*C. Colon*, Klug (Jahrb. p. 11), Brullé (Arch. d. Mus. i. pl. 7. f. 9).—Bengala.
12. *C. limbata*, Wiedem. (Zool. Mag. ii. pp. 1, 65)=*Euryoda tetraspilota*, Chaud. (Bull. Mosc. 1852, p. 29).—Bengala.
13. *C. heteromalla*, MacLeay (Ann. Jav.), Van der Linden (Essai sur l'Ins. de Java, p. 10).—Java.

The species 3–8 constitute Chaudoir's group *Ænictomorpha* (Bull. Mosc. 1850, p. 11) ; the species 9–12 are referred by Chaudoir (Bull. Mosc. 1860, iv.) to the genus *Odontocheila*, Lap.

The following two species I have not been able to examine. I conclude, however, from their descriptions, that they may also belong to this group.

14. *C. scrobiculata*, Wiedem. (Zool. Mag. ii. pp. 1, 65).—Bengala. (Omitted in Lacordaire's Gen. d. Col.)
15. *C. exornata*, Schmidt-Goebel (Faun. Birm. pl. 1. f. 7).—Birma.

The colour of the upper lip varies in the species of this group, being yellow in *C. analis*, &c., bluish green with a white stripe in *C. quadripunctata*, coppery in *C. heteromalla*, and black in *C. limbata*.

Sect. III. *Prothorax et elytra subdepressa. Labrum semper quinquedentatum.* Divisio V., Dej. *Calochroa*, Hope.

16. *C. heros*, Fabr., Van der Linden (l. c. p. 11), Brullé (Arch. du Mus. i. pl. 8. f. 10).—Celebes.
17. *C. lacrymans*, Schaum (v. supra).—Ceylon.
18. *C. octonotata*, Wied., Dej.—Bengala.
19. *C. chinensis*, Fabr., Dej.—China.
20. *C. Duponti*, Dej.—Cochinchina.
21. *C. aurulenta*, Fabr., Dej. Var. : *C. flavomaculata*, Chevr. (Rev. Zool. 1845, p. 95).—Java et China.
22. *C. intermedia*, Chaud. (Bull. Mosc. 1852, p. 6).—Ind. or.
23. *C. princeps*, Vigors (Zool. Journ. i.). Varr. : *C. aurofasciata*, Dej. ; *C. crucigera*, Hope (Col. Man. ii. pl. 1. f. 2) ; *C. lepida*, Gory, Mag. d. Zool. 1833, pl. 96 (*Goryi*, Chaud. Bull. Mosc. 1852, p. 4). —Ind. or.
24. *C. calligramma*, Schaum (Berl. Zeitschr. 1861, tab. 1 B. f. 1).—Ind. or.
25. *C. dives*, Gory (Mag. d. Zool. 1833, pl. 97).—Ind. or.
26. *C. semivittata*, Fabr., Schmidt-Goeb. Faun. Birm. pl. 1. f. 2. Varr.: *C. striolata*, Illig. (Wiedem. Archiv, i. 2. p. 114); *C.*

*Vigorsii*, Dej.; *C. dorsolineata*, Chevr. (Rev. Zool. 1845); cf. Schaum, Berl. Zeitschr. 1862, p. 173.—Sumatra, Java, Ins. Philipp., Hong Kong.

27. *C. assamensis*, Parry (Trans. Ent. Soc. iv. pl. 11).—Assam.
28. *C. Shivah*, Parry (l. c. v. pl. 11).—Assam.
29. *C. bicolor*, Fabr., Dej.—Ind. or.
30. *C. hæmorrhoidalis*, Wied. (Zool. Mag. ii. 1. p. 63)=*C. quadrimaculata*, Sturm (Cat. 1826, tab. 1. f. 1)=*C. flavopunctata*, Audouin (Mag. d. Zool. 1832, pl. 18).—Bengala.
31. *C. octogramma*, Chaud. (Bull. Mosc. 1852, p. 4).—Ind. or.

The following species, which I know only by their descriptions, seem also to belong to this group.

32. *C. guttata*, Wiedem. (Zool. Mag. ii. 1. p. 63), omitted by Lacordaire.—Bengala.
33. *C. interruptofasciata*, Schmidt-Goebel (Faun. Birm. pl. 1. f. 1).—Birma.
34. *C. tritoma*, Schmidt-Goebel (Faun. Birm. pl. 1. f. 3).—Birma.

The colour of the upper lip varies also in the species of this group. It is yellowish with a more or less brown apex in *C. heros, lacrymans, princeps, calligramma, dives, eucosmeta, semivittata, guttata*; yellowish with a black or green basis in *chinensis, aurulenta, octonotata*; yellowish with green spots, or green with yellowish spots, in *Duponti, tritoma, interruptofasciata*; entirely black in *assamensis, Shivah*; entirely metallic green in *bicolor, hæmorrhoidalis*, and *octonotata*.

B. *Labrum with never more than three small teeth, usually but one, often entirely unarmed.*

Sect. IV.: Div. VI., Dej.

a. *Prothorax lævigatus, nitidus, cylindricus.*

35. *C. gloriosa*, Schaum (Berl. Zeitschr. 1861).—Celebes (Menado).
36. *C. eximia*, Van der Linden, Schaum (l. c.).—Celebes (Menado).
37. *C. Diana*, Thoms. (Arc. Nat. ii. 90), et var.? *C. Latonia*, Schaum (l. c. tab. 1 B. f. 5).—Celebes (Menado).
38. *C. eustalacta*, Schaum (l. c. tab. 1 B. f. 4).—Celebes (Menado).
39. *C. didyma*, Dej.—Java.
40. *C. theratoides*, Schaum (l. c. f. 3).—Celebes (Menado).

The specimen which I described has a coppery-golden upper lip;

I have since obtained others where it is quite yellow, with scarcely any metallic hue.

41. *C. guttula*, Fabr., Guér. (Mag. d. Zool. 1835, pl. 131).—Archip. Indic.

42. *C. conspicua*, Schaum (Berl. Zeitschr. 1862, p. 177).—Ins. Philipp.

43. *C. virginea*, Schaum (Berl. Zeitschr. 1860, p. 182).—Ins. Philipp.

44. *C. Clara*, Schaum (Berl. Zeitschr. 1860, p. 181, tab. 3. f. 3), et var. *suavissima*, Schaum (l. c. 1862, p. 176).—Ins. Philipp.

45. *C. elegans*, Dej.=*C. versicolor*, MacLeay (Ann. Jav.)=*C. superba*, Koll. (Ann. d. Wien. Mus. i.).—Java, Sumatra.

In the majority of the preceding species the upper lip is metallic or black, in *C. theratoides* its colour is variable (coppery golden or yellow), in *C. eximia* and *C. Diana* it is yellow with a metallic hue, in *C. didyma* and *C. guttula* yellowish white.

B. *Prothorax non lævigatus, granulatus aut rugulosus, plerumque parum nitidus.*

a. *Labrum metallicum aut nigrum, rarissime flavomaculatum.*

46. *C. fugax*, Schaum (Berl. Zeitschr. 1862, p. 177).—Ins. Philipp.

47. *C. stenodera*, Schaum (Berl. Zeitschr. 1861, p. 72).—Celebes (Menado).

48. *C. decempunctata*, Dej.—Ind. or. Unknown to me. The labrum with a small yellow spot.

49. *C. viridilabris*, Chaud. (Bull. Mosc. 1852, p. 24).—Ind. or.

50. *C. viduata*, Fabr.=*C. triguttata*, Herbst, Dej., Schmidt-Goeb. =? *C. Myrrha*, Thoms. (Arch. Entom. i. p. 129)*.—Java, Sumatra, Celebes, &c.

51. *C. chlorochila*, Chaud. (Bull. Mosc. l. c. p. 25).—Hong Kong.

52. *C. nana*, Schaum (Berl. Zeitschr. 1862, p. 177).—Ins. Philipp.

53. *C. conicollis*, Schaum (l. c.).—Ins. Philipp.

The female of this species, which I had not seen when I published my description, has the prothorax broader at the base than the male, and more attenuated in front; the elytra are subtruncate at the extreme apex. The tooth of the suture mentioned by me (sutura aculeata) is even in the male usually very small.

* I have not seen a type of *C. Myrrha*, Thoms.; but the very unsatisfactory description agrees with *C. viduata*.

54. *C. mandibularis,* Schaum (Berl. Zeitschr. 1860).—Ins. Philipp.

The two last species are remarkable by their unusually long and slender mandibulæ, by their long last joint of the palpi (that of the labial being not much shorter than the penultimate), and by their thorax more or less attenuated in front, as in *C. psammodroma, ancora,* &c.

b. *Labrum albidum.*

55. *C. sexpunctata,* Fabr., Dej.; var. *C. aurovittata,* Brullé (Arch. d. Mus. i. pl. 8. f. 3).—Ind. or., Ins. Philipp.

56. *C. Whithillii,* Hope (Col. Man. ii. p. 23, omitted by Lacordaire). —Ind. or. (Madras).

57. *C. decemguttata,* Fabr., Dej.—Celebes, Amboina.

58. *C. albina,* Wiedem.; *albida,* Dej.—Ind. or.

59. *C. catena,* Fabr., Dej.—Ind. or.

60. *C. Candei,* Chevr. (Rev. Zool. 1845).—China (Hong Kong).

61. *C. cancellata,* Dej., Schmidt-Goebel (tab. 1. f. 4).—Java, Birma.

62. *C. striatifrons,* Chaud. (Bull. Mosc. 1852).—Ind. or.

63. *C. funerea,* MacLeay (Ann. Jav.)=*C. marginepunctata,* Dej. Var. *C. opigrapha,* Dej., et var. *multinotata,* Schaum (Berl. Zeitschr. 1861).—Java, Birma, Celebes, &c.

64. *C. Himalayica,* Redtenb. (Hugel's Kaschmir, iv. 2. pl. 23. f. 1). —Himalaya.

65. *C. fuliginosa,* Dej., Schmidt-Goebel (pl. 1. f. 6).—Malacca.

66. *C. lacrymosa,* Dej.=*C. insularis,* Blanch. (Voy. au Pôle Sud, pl. 1. f. 1).—Ins. Philipp.

67. *C. vittigera,* Dej.—Java (teste Van der Linden, p. 15).

68. *C. vigintiguttata,* Herbst, Dej.—Ind. or.

69. *C. multiguttata,* Dej.—Ind. or.

70. *C. angulata,* Herbst, Dej., Schmidt-Goeb. (tab. 1. f. 8)=*C. latipennis,* Parry (Trans. Ent. Soc. iv.).—Ind. or.

71. *C. sumatrensis,* Herbst, Dej.=*C. arcuata,* Koll. (Ann. d. Wien. Mus. i.)=? *C. angulata,* Fabr.=? *C. tremebunda,* MacLeay.— Malacca, Java, Sumatra, Ins. Philipp.

72. *C. LeGuilloui,* Guér. (Rev. Zool. 1841, p. 120)=*C. Boyeri,* Blanch. (Voy. au Pôle Sud, pl. 1. f. 2).—Borneo.

73. *C. nitida,* Wiedem., Dej.=*C. venosa,* Koll. (l. c.).—Bengala.

74. *C. cognata,* Wiedem. (Zool. Mag. ii. 1)=? *C. grammophora,* Chaud. (Bull. Mosc. 1852).—Bengala.

75. *C. excisa,* Schaum (Berl. Zeitschr. 1862).—Ins. Philipp.

76. *C. minuta*, Fabr.=*C. baltimorensis*, Herbst=*C. pumila*, Dej., =*C. acuminata*, Koll. (l. c.)=*C. Prinseppii*, Saund. (Trans. Ent. Soc. i.)=?*C. tremebunda*, MacLeay.—Ind. or., Java.
77. *C. erudita*, Wiedem. (l. c.)=*C. triramosa*, Kollar=*C. chloropus*, Brullé (Arch. d. Mus. pl. 9. f. 2).—Ind. or.
78. *C. amabilis*, Dej.—Ind. or.
79. *C. bigemina*, Klug=*C. tremula*, Brullé (l. c. pl. 9. f. 3).—Ind. or.
80. *C. undulata*, Dej.= ♀ *C. speculifera*, Chevr. (Rev. Zool. 1845).—Java, Hong Kong.
81. *C. fastidiosa*, Dej.=*C. litigiosa*, Dej., sec. typum, teste Chaud.—Ind. or.
82. *C. ludia*, Dej.—Java.
83. *C. distinguenda*, Dej.=*Myriochila Dohrnii*, Motsch. Etud. Entom. vi. p. 109, teste Chaud.—Ind. or.
84. *C. atelesta*, Chaud. (Bull. Mosc. 1854, p. 4); *C. imperfecta*, Chaud. (Bull. 1852).—Ind. bor.
85. *C. leucoloma*, Chaud. (Bull. Mosc. 1852).—Ind. bor.
86. *C. albopunctata*, Chaud. (l. c.).—Ind. bor.
87. *C. discreta*, Schaum (v. supra).—Celebes (Menado).
88. *C. dromicoides*, Chaud. (Bull. Mosc. 1852).—Ind. bor.
89. *C. funebris*, Schmidt-Goebel.—Birma.
90. *C. macilenta*, Schaum (Berl. Zeitschr. 1862).—Ins. Philipp.
91. *C. craspedota*, Schaum (v. supra).—Celebes (Menado).
92. *C. terminata*, Dej.—Ins. Philipp.
93. *C. Gyllenhalii*, Dej.—Ind. or.
94. *C. limosa*, Saund. (Trans. Ent. Soc. i. tab. 8. f. 6), Schmidt-Goebel.—Bengala.
95. *C. nivicincta*, Chevr. (Rev. Zool. 1845).—China (Hong Kong).
96. *C. phalangoides*, Schmidt-Goebel (tab. 1. f. 5).—Birma.
97. *C. araneipes*, Schaum (v. supra).—Borneo.
98. *C. tenuipes*, Dej.—Cochinchina.
99. *C. longipes*, Fabr., Dej.—Java.
100. *C. punctatissima*, Schaum (v. supra).—China (Amoy).
101. *C. psammodroma*, Chevr. (Rev. Zool. 1845).—China (Hong Kong).
102. *C. ancoralis*, Chevr. (l. c.).—China (Hong Kong).

The last six species have a comparatively small head with a flat front, and a distinct point on each side in the emargination of the

eye, the prothorax is more or less attenuated in front, and the legs of unusual, or even extraordinary length. On such species Hope's genus *Habroscelis* is founded; they cannot, however, even be separated as a section, as an insensible passage between them and the other species may be traced through *C. Ypsilon*, *nitidula*, *niveicincta*, *phalangoides*, &c. The two following species, unknown to me, seem also to be such intermediate forms.

103. *C. Kinbergi*, Bohem. (Eugen. Reis.).—Ind. or. (Puna).

104. *C. copulata*, Schmidt-Goebel.—Ind. or. (Bengala?).

Sect. V. *Labrum majusculum, antice rotundato-angustatum.*
Div. VII., Dej.

a. *Labrum flavum.*

105. *C. funesta*, Fabr., Dej.=*C. cayennensis*, Herbst.—Ind. or.

106. *C. pupillata*, Schaum (v. supra).—Mysol.

107. *C. foveolata*, Schaum (v. supra).—Celebes.

b. *Labrum concolor.*

108. *C. placida*, Schaum (v. supra).—Mysol.

There are a few more species described, to which I am unable to assign a place.

109. *C. limbata*, Schmidt-Goebel, p. 7, from Birma, having a yellow labrum with three teeth, may either belong to Sectio IV. b. b., or to Sectio I. (*Hypætha*), as the author compares it to *C. biramosa*, without, however, noticing the dorsal sutures of the prothorax. As the name *limbata* was preoccupied for another species by Wiedemann, I propose for the present that of *Helferi*.

110. *C. holosericea*, Fabr., from Java. A small species, which is entered in Dejean's Catalogue (3rd ed.) after *C. funesta*, Fabr., from which it would appear that it belongs to Sectio V.

111. *C. interrupta*, Fabr., from Java. A small species with a yellow labrum, which belongs either to Sectio IV. b. b., or to Sectio V. a.

A species completely unknown to all modern entomologists is *C. cyanea*, Fabr., stated to be a large blue insect from India; it may not even belong to the genus *Cicindela*. *C. viridula*, Schönh., Dej., a species from Mauritius, but stated by Schönherr to occur in India, belongs to the genus *Megalomma*, Westw., distinguished from *Cicindela* by the swollen antepenultimate joint of the labial palpi.

*List of the Species of* Tricondyla.

I cannot consider the genus *Derocrania*, established by Baron

Chaudoir (Bull. Mosc. 1860, iv.) on some Ceylonese species, as being well founded. He distinguishes it from *Tricondyla* principally "capite basi strangulato, fronte parum excavata, menti lobis acutissimis." The head is, however, equally attenuated behind and constricted at the base in *T. cyanipes* and allied species; the flat front is also found in *T. planiceps*; the lobes of the mentum are also very acute in *T. planiceps*, which does not belong to *Derocrania*. The genus *Tricondyla*, constituted as it is, is so eminently natural, that it only admits of further division into sections, not into genera. The known species of it have been simultaneously enumerated both by Chaudoir (Bull. Mosc. 1860) and by me (Berl. Zeitschr. 1861); the list given of them requires, however, some emendation, as I have convinced myself by the examination of a vast number of specimens in the British Collections, especially in those of W. W. Saunders and A. Wallace. The actually known species may be thus arranged.

I. *Caput postice non strangulatum.*

A. *Prothorax inter sulcum transversum basalem et apicalem plus minusve inflatus, lævigatus.*

1. *T. aptera*, Oliv., Dej.; *connata*, Lamarck*.
   Var. *T. Chevrolatii*, Lap., Brullé.
   Var. *T. pedestris*, Klug=*varicornis*, Chaud. (Ann. Soc. Ent. d. France, 1861).
   Var. *T. violacea*, Chaud. (Bull. d. Mosc. 1860).

*T. Chevrolatii*, Lap., Brullé, which is in all probability erroneously stated by Laporte to have come from Java, is a variety of *aptera* with red femora, found in the various islands of the Eastern Archipelago approaching New Guinea. Neither the sculpture nor the form offers any real difference from *aptera*, and a great number of specimens in the collection of Mr. Saunders show all passages in the colour of the femora. *T. pedestris*, Klug, and *varicornis*, Chaud., are established on specimens in which not only the femora, but also the apex of the labrum and the first joint of the antennæ are reddish. *T. violacea*, Chaud., is a more marked variety, with somewhat shorter elytra and a more violaceous colour; but even these differences shade off gradually. It is probable, but not yet quite ascertained, that the black variety of *T. cyanea* described by Van der Linden, on which Brullé founded his *T. atrata*, is = *Chevrolatii*, Lap. *T. Wallacei*, Thoms., from Borneo, formerly, in consequence of its unsatisfactory description, referred to *T. Chevrolatii*, is, as I am informed by Baron Chaudoir,

* The full quotations are given by me in Berl. Zeitschr. 1861 and 1862.

a distinct species, allied to *cyanea*, Dej., which has been taken by Count Castelnau also on the Malayan peninsula.

2. *T. punctipennis*, Chevr.; *globicollis* et *vicina*, Chaud.—Philippine Islands.
3. *T. ventricosa*, Schaum.—Philippine Islands.
4. *T. annulicornis*, Schmidt-Goebel.—Birma. (Cf. Berl. Zeitschr. 1862, p. 184.)
5. *T. gibba*, Chaud. (Bull. Mosc. 1861, ii. p. 358).—Cambodia. Evidently closely allied to the preceding.
6. *T. punctulata*, Chaud. (Ann. Soc. Ent. Fr. 1861).—Ceram. Unknown to me.
7. *T. Wallacei*, Thoms.—Borneo, Malacca.
8. *T. cyanea*, Dej.—Java.
9. *T. macrodera*, Chaud.—Hindostan.
10. *T. Mellyi*, Chaud.—Hindostan. Unknown to me.
11. *T. tuberculata*, Chaud.—China? Unknown to me.

B. *Prothorax non inflatus, cylindricus, transversim strigosus.*

12. *T. coriacea*, Chevr.—Ceylon.
13. *T. granulosa*, Motsch.—Ceylon.
14. *T. pulchripes*, White.—Hong Kong.

II. *Caput postice attenuatum, basi strangulatum.*

A. *Prothorax lævigatus. Menti lobi laterales antrorsum directi.*

The known species of this section are all from the Philippine Islands.

15. *T. conicicollis*, Chaud.
16. *T. cyanipes*, Eschsch., Dej.
17. *T. cavifrons*, Schaum.
18. *T. planiceps*, Schaum.

B. *Prothorax, saltem in parte, transversim strigosus. Menti lobi in spinam deorsum directam producti. Derocrania*, Chaud.

The known species are all from Ceylon.

19. *T. Dohrnii*, Chaud.
20. *T. concinna*, Chaud.
21. *T. nematodes*, Schaum.
22. *T. gibbiceps*, Chaud.
23. *T. rhaphidioides*, Schaum; *lævigata*, Chaud.

The description of *lævigata*, Chaud., is published in No. iv. Bull.

d. Mosc. 1860. This, however, appeared later than the first part of the Berliner Zeitschrift for 1861.

*List of the Species of* Collyris.

The number of described species of this genus is very considerable; but as many of them are closely allied, and described in an unsatisfactory manner, frequently without reference to those already known, it is only by comparison of the type specimens that the synonymy of the obscurer species can be cleared up. The following list must therefore be considered as provisional only.

1. *C. longicollis*, Fabr.—Siam. (Type in the Banksian cabinet.)
2. *C. Lafertei*, Chaud. (Bull. Mosc. 1860, iv.).—Hindostan.
3. *C. Dohrnii*, Chaud.—Ceylon.
4. *C. aptera*, Lund (Skrifter af Naturh. Selsk. i. p. 65, tab. 6. f. 1: Copenh. 1790), Fabr.—Ind. or. (Type in the Copenhagen collection.)

   ? *C. aptera*, Chaud. (Bull. 1860).—Bengala.

   ?? *C. major*, Latr. (et Dej. Icon. i. pl. 2. f. 4), Brullé (Hist. Nat. d. Ins. iv. pl. 3. f. 1).
5. *C. acrolia*, Chaud.—Philippine Islands.
6. *C. speciosa*, Schaum (v. supra).—Philippine Islands.
7. *C. plicata*, Schaum.—Philippine Islands.
8. *C. Chevrolatii*, Guér. (Mag. d. Zool. vii. pl. 226).—Java.

   ? *C. major*, Latr. l. c.
9. *C. tuberculata*, MacLeay = *C. longicollis*, Dej., non Fabr. = *C. Audouinii*, Lap., Brullé.—Java.
10. *C. crassicornis*, Dej. = *C. Diardi*, MacLeay (sec. typ.) = *C. MacLeayi*, Brullé = *C. purpurata*, Klug (sec. typ., purple-coloured variety).—Ind. or., Java.
11. *C. modesta*, Dej.—Java.
12. *C. Arnoldi*, MacLeay.—Java.
13. *C. Horsfieldii*, MacLeay, Van der Linden, Brullé = *C. rugicollis*, Klug.—Java.
14. *C. lugubris*, Van der Linden.—Java.
15. *C. elegans*, Van der Linden.—Java.
16. *C. Robynsii*, Van der Linden.—Java.
17. *C. emarginata*, Dej.; *longicollis*, Oliv.—Ind. or.
18. *C. Diardi*, Latr. (et Dej. Icon.) = *C. tarsata*, Klug.—Java, Sumatra.

19. *C. rufitarsis*, Klug.—Java.
20. *C. brevicollis*, Klug.—Ind. or.
21. *C. Bonellii*, Guér. (Bélang. Voy.).—Bengala, Java.
22. *C. cribellata*, Chaud. (Bull. Mosc. 1860).—Deccan.
23. *C. distincta*, Chaud. (l. c.).—Ind. or.
24. *C. celebensis*, Chaud. (l. c.).—Celebes.
25. *C. puncticollis*, Chaud.—Hindostan.
26. *C. filiformis*.—Chaud. (Bull. 1843).—Java.
27. *C. caviceps*, Klug; *C. longicollis*, Herbst, non Fabr.—N.
28. *C. obscura*, Lap., Brull. (Arch. d. Mus.).—Java.
29. *C. postica*, Brull. (Arch. d. Mus. pl. 9. f. 8).—Java.
30. *C. ruficornis*, Brull.—Bengal.
31. *C. flavitarsis*, Brull.—Java.
32. *C. Ortygia*, Buquet (Ann. Soc. Ent. Fr. iv. p. 604).—Java.
33. *C. albitarsis*, Erichs. (Act. Leopold.)=*C. femorata*, Westw. (Proc. Zool. Soc. 1837).—Manilla.
34. *C. attenuata*, Redtenb. (Hügel's Kaschmir).—Himalaya.
35. *C. pleuritica*, Schmidt-Goebel.—Birma.
36. *C. melanopoda*, Schmidt-Goeb.—Birma.
37. *C. mœsta*, Schmidt-Goeb.—Birma.
38. *C. cruentata*, Schmidt-G.—Birma.
39. *C. cylindrica*, Schmidt-G.—Birma.
40. *C. linearis*, Schmidt-G.—Birma.
41. *C. diffracta*, Schmidt-G.—Birma.
42. *C. fuscitarsis*, Schmidt-G.—Birma.
43. *C. parvula*, Chaud. (Bull. Mosc. 1848; Bull. 1860).—Ind. or.
44. *C. amœna*, Chaud.—Ind. or.
45. *C. saphyrina*, Chaud. (Bull. 1850)=*C. Boysii*, Chaud. (Bull. 1860), var. *major*.—Ind. bor.
46. *C. maculicornis*, Chaud.—Simlah.
47. *C. subdilatata*, Chaud.—Deccan.
48. *C. flavicornis*, Chaud.—Hindostan.
49. *C. chloroptera*, Chaud.—Singapore.
50. *C. varitarsis*, Chaud.—Hindostan.
51. *C. dolens*, Chaud. (Berl. Zeitschr. 1861, p. 399).—Borneo.
52. *C. sarawakensis*, Thoms.—Borneo (Sarawak). (Nomen horribile.)

53. *C. cribripennis*, Thoms.—Borneo.

54. *C. leucopus*, Schaum ; *albitarsis*, Thoms. ; *leucodactyla*, Chaud.—Borneo.

55. *C. gibbicollis*, Motsch. (Etud. vi. pl. f. 4).—Assam.

### Therates.

Having given a list of the species (Berl. Zeitschr. 1860) and a supplementary note to it (*ibid.* 1862), I will confine myself here to a few observations.

*Therates vigilax*, Schaum, from the Philippine Islands, varies in the extent of the black colour of the elytra ; I have seen specimens where it has even completely disappeared and the elytra are quite yellow. The same variation seems to occur in *Th. fasciatus* from Celebes ; for a specimen in Mr. Wallace's collection with entirely yellow elytra did not, on a cursory examination, appear to me to be anything but a variety. *Th. flavilabris*, Fabr., seems to have been established on such a specimen ; his type was considered as a variety of *fasciatus* (Boisd. Faun. de l'Océan. p. 10) by Latreille.

To the list of species enumerated by me is to be added *Th. cyaneus*, Chaud. (Bull. d. Mosc. 1861, iv.), from Mysol.

The name of the species no. 3 of my list (Berl. Zeitschr. 1860, p. 183) ought to be *cæruleus* instead of *cyaneus*.

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## VII.—*Descriptions of four new Genera of* Carabidæ.

By Dr. H. Schaum.

### Tylonotus [tribum novum *Tylonotini* constituens].

*Coxæ mediæ* valde approximatæ, *mesosterno* et *metasterno* apice angustis.
*Epimera* mesothoracis *episternis* concreta coxas medias attingentia.
*Tibiæ anticæ* simplices, anteriores intus ciliatæ.
*Prothorax* dorso turbinatus.
Margo *elytrorum* integer.

This most interesting insect, on which I propose to establish a new tribe of Carabidæ, bears a great similarity to the Ozænidæ (especially to the genus *Tropopsis*, Sol.), and agrees with them (and the Pseudomorphidæ) in having a very narrow mesosternum, so that the middle coxæ are nearly contiguous ; it differs, however, by its completely *simple* anterior tibiæ, by the margin of the elytra not being interrupted, and by the epimera and episterna of the mesothorax being entirely connate.

Eyes prominent, entirely globose, not truncated or emarginated behind

as in the Ozænidæ. Antennæ almost of the length of the head and thorax *, much more slender than in the typical Ozænidæ, resembling those of the genus *Physea*, Brull., with the three basal joints smoother than the rest. Labrum short, emarginate, with produced angles. Mentum with a single tooth in its middle. Prothorax rather elongate, with the disk elevated and callous, and a broad oblong impression on each side between the callus and the elevated margin. Mesosternum very narrow between the intermediate coxæ, but still separating them and receiving the attenuated apex of the metasternum. Episterna and epimera of the mesothorax completely soldered together, forming a large portion of the intermediate acetabula. Episterna of the metathorax elongate as in Ozænidæ, epimera conspicuous. Elytra elongate, impressed on each side a little before the middle, so that the margin forms here a little sinus. Anterior and intermediate tibiæ a little flexuous inside, ciliate, the anterior a little dilated before the apex, without any trace of emargination, and with but one very small spur at the inner extremity. Abdomen with the second and ventral segment connate.

*Tylonotus Fryi.* (Pl. IV. fig. 2.)

*T.* testaceus, parce pilosus; capite prothoraceque lævigatis, hoc fossula media anteriore; elytris dorso obsolete striatis, interstitiis alternis seriatim obsolete punctatis.—Long. 4 lin.

The only specimen I am acquainted with is in the collection of A. Fry, Esq., who took it in the Brazils (Espiritu Santo).

Bothynoptera [trib. Lebiadæ].

*Caput* postice constrictum; *oculis* magnis, valde globosis.
*Labrum* transversum, apice subrotundatum.
*Mandibulæ* breves, latæ, deplanatæ, parum arcuatæ.
*Palpi* articulo ultimo ovali.
*Mentum* medio emarginatum, membrana basali valde conspicua, paraglossa cum ligula connata.
*Prothorax* subquadratus, lateribus sinuatus, basi truncatus, supra deplanatus.
*Elytra* postica sublatiora, apice late emarginata, dorso foveolis majoribus impressis.
*Tarsi* articulo quarto bilobo, unguiculis valde pectinatis.

In the great number of genera composing the tribe of Lebiadæ three different types may be distinguished, the *Cymindes*, *Dromii*, and the genuine *Lebiadæ* (cf. Lacord. i. p. 102; LeConte, Classif. of Col. p. 23). The genuine Lebiadæ are represented by those genera in which the head is constricted behind, and in which the mentum is not distinctly toothed but has the emargination more or less

* They are a little too short in the figure.

filled-in with a basal membrane. Such genera are *Lebia* (including *Lia*, Eschsch.), *Nemotarsus*, LeC., *Cryptobatis*, *Sarothrocrepis*, *Eurycœlus*, *Physodera*, *Singilis*, and *Plochionus*. Of the other genera mentioned by Lacordaire the following are, however, to be excluded: —*Pentagonica*, Schmidt-Goebel (=*Rhombodera*, Reiche), *Mochtherus*, and *Arsinoë* (=*Rhaphidognatha*, Murray), which by their large labrum are Pericalidæ; *Euplynes*, Schmidt-G. (=*Dyscolus*, Dej.), which is an Anchomenid; *Rhopalostyla*, which stands better among the Cymindes; *Tetragonoderus*, which approaches nearer the Dromii; and *Masoreus*, which constitutes a type of its own. The genera *Promecoptera*, *Haplopeza*, *Scalidion*, and *Dolichoctis* are unknown to me.

Of the genera composing the true Lebiadæ, to which also *Bothynoptera* belongs, *Lebia*, *Nemotarsus*, *Cryptobatis*, *Sarothrocrepis*, *Physodera*, and *Singilis* have the prothorax more or less pedunculate in the middle; while it is truncate in *Plochionus*, and with rounded posterior angles in *Eurycœlus*. It is also truncate in *Bothynoptera*, which is very distinct from the others in the shape of the prothorax, in the elytra being broadly emarginate at the apex and having foveæ on their dorsum, and in the extraordinary size and number of the comb-like teeth of the claws.

*Bothynoptera dorsigera*. (Pl. IV. fig. 3.)

*B.* brunnea, capite intra oculos fossulato, ante fossulam macula testacea notato; prothoracis apice et basi fossulatis, lateribus valde deplanatis, testaceis; elytris subtilissime striatis, foveis quatuor majoribus seriatis, plaga magna dorsali testacea.—Long. 5 lin.

Discovered by Captain Boys in Northern India. A specimen has been given to me by Professor Westwood.

Acmastes [trib. Harpalidæ].

*Caput* maximum, postice non attenuatum.
*Antennæ* capite parum majores, tenues.
*Oculi* sat magni, sed parum prominentes.
*Labrum* antice subemarginatum.
*Mandibulæ* breves, obtusæ.
*Palpi maxillares* articulo ultimo præcedente multo breviore.
*Mentum* dente medio minutissimo.
*Prothorax* coleopteris vix angustior, postice angustatus, angulis postice rectis, margine subdeplanato.
*Coleoptera* ovata, parum convexa.
*Tarsi* præsertim *postici* tibiis multo breviores, subdilatati, setosi, *antici* maris simplices.
*Tibiarum* calcaria valida, interna præsertim paris intermedii externis multo longiora.

The numerous group of Harpalidæ has been divided by Lacordaire and LeConte into three subsections: one embracing the genera in which the anterior tarsi of the male are not dilated—*Cratoceridæ*, Lac. = *Dapti*, LeC.; the second, those in which the tarsi in the male are dilated and clothed underneath with a brush of hair—*Anisodactylidæ*, Lac. = *Eurytrichi*, LeC.; the third, such as have the anterior tarsi in the male dilated and clothed underneath with squamiform papillæ—true *Harpalini*. The genera of the first subsection have all a large and more or less square head, which is not attenuated behind (*Cratocerus*, *Geopinus*, *Daptus*, *Batoscelis*, *Nothopus*, *Amblygnathus*, *Melanotus**), a form of the head which is also found in a number of genuine *Harpalini*, such as *Pangus*, Schaum, *Cratacanthus*, *Cratognathus*, *Barysomus*, *Anisocnemus*, *Paramecus*. The genus *Acinopus*, associated by Lacordaire with the latter, is, however, to be removed from them and to be added to the first subsection; for although the anterior tarsi are somewhat more dilated in the male than in the female, they are not clothed underneath with squamiform papillæ. I have already elsewhere (Berl. Zeitschr. 1859, p. 274) drawn attention to the close affinity of the apparently anomalous genus *Heteracantha*, Brullé (Lacord. i. p. 307), with *Acinopus*; this is further confirmed by the discovery of *Acmastes*, which is an intermediate form, closely allied in its characters to *Heteracantha*, but differing from it by its short and obtuse mandibles, by the size of its head and prothorax, the latter being almost equal in breadth to the coleoptera, by its stouter legs, and by the different size and form of the tibial spurs, which are almost equal in *Heteracantha*. In its general form it much resembles a *Scarites* or *Pasimachus*, and might be considered as a proof that Chaudoir was perfectly right in putting the remarkable genus *Dioctes*, Ménétr. (Lac. i. p. 238), as well as *Heteracantha*, next to *Acinopus*. There is but one character which still induces me to associate the latter rather with the *Ditomi*, while it must be acknowledged at the same time that the *Ditomi* themselves can scarcely be separated from the *Harpalini*: this character consists in the produced corners of the forehead, by which in *Dioctes* as well as in the *Ditomi* the insertion of the antennæ is covered; it is the only character by which the *Ditomi* may still be distinguished from the *Harpalini*.

* Of the genera referred by Lacordaire to this subdivision, *Cyclosomus*, *Somoplatus*, and *Macracanthus* have to be removed, *Cyclosomus* constituting a proper group, and *Somoplatus* and *Macracanthus* being nearly allied to *Masoreus*.

*Acmastes Haroldii.* (Pl. IV. fig. 4.)

*A.* niger, coleopteris subtilissime striatis.—Long. 9½ lin.

The eighth stria of the elytra, which in *Heteracantha* is close to the ninth, and follows it throughout the length of the elytron, recedes in *Acmastes* from the ninth behind the shoulder and approaches it again behind the middle, forming a feeble, externally concave sinus.

A unique specimen of this remarkable insect has been taken by Baron Harold, of Munich, at Mogador, who kindly presented it to me. Although its sex is not ascertained, I have no doubt that the anterior tarsi are not dilated in the male.

Phorticosomus [trib. Harpalini].

*Caput* crassum, postice non attenuatum.
*Labrum* subquadratum, fere truncatum.
*Palpi maxillares* articulo ultimo præcedenti æqualis.
*Mentum* dente medio parvo, membrana basali valde conspicua.
*Prothorax* lateribus et angulis posticis rotundatis.
*Elytra* sine striola scutellari.
*Tarsi antici* in utroque sexu simplices.

This genus belongs also to the group of *Dapti* (Cratoceridæ), having the anterior feet not dilated in the male, and a large head not contracted behind; it is closely allied to *Acinopus*, and differs chiefly in its truncate labrum, and elytra without the scutellar striola.

*Phorticosomus felix.* (Pl. IV. fig. 5.)

*P.* supra piceus, subtus rufo-piceus; prothorace basi obsolete punctulato-rugoso; elytris profunde striatis, striis lævibus.—Long. 5½ lin.
*Habitat* in Australia felici (Victoria) (*D. Bakewell*).

EXPLANATION OF PLATE IV.

Fig. 1. *Tricondyla nematodes.*
„ 2. *Tylonotus Fryi.*
2 *a.* Seen sideways.
2 *b.* Anterior leg.
2 *c.* Middle leg.
Fig. 3. *Bothynoptera dorsigera.*
3 *a.* Maxillæ and labium.
3 *b.* Anterior leg.
3 *c.* Claws of the leg.
„ 4. *Acmastes Haroldii.*
4 *a.* Middle leg.
„ 5. *Phorticosomus felix.*

VIII.—*List of the* Colydiidæ *collected in the Amazons Valley by* H. W. Bates, Esq., *and Descriptions of new Species.* By Francis P. Pascoe, F.L.S., &c.

The number of species of Colydiidæ collected by Mr. Bates during his long residence in the Valley of the Amazons, and now in my collection, amounts to thirty-nine*. For a family in which the species are generally small and inconspicuous, and whose lives are passed for the most part beneath the bark of trees, or in holes and galleries of the wood, and which therefore must be sought for with especial care and attention, this may be considered a large number†. Even this number might doubtless have been exceeded if this able naturalist could have devoted more time to the investigation, but it is enough to show that multitudes remain to be revealed when other districts shall have been worked with the same care.

It would be premature at this time to enter into any analysis of the distribution of the genera and species which this collection might have suggested; as yet, we are scarcely on the threshold of our knowledge of the family. For the present I shall follow the division of the Colydiidæ into the five subfamilies proposed by Erichson, premising that one of them, the *Pycnomerinæ*, although represented at Rio, is absent from this collection.

The following table shows the most salient of the diagnostic characters of the genera mentioned in this list.

Synchitinæ.

Tarsi with the basal joint short.
- Body peltiform, antennæ 12-jointed ..... *Zanclea*, n. g.
- Body oblong, antennæ 11-jointed.
  - Without antennary grooves ..... *Bitoma*, Herbst.
  - With antennary grooves.
    - Prothorax lobed anteriorly ..... *Distaphyla*, Pasc.
    - Prothorax not lobed anteriorly ..... *Phlœodalis*, Er.

Tarsi with the basal joint elongate ..... ..... *Acropis*, Burm.

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* For some of these, however, I am indebted to W. Wilson Saunders, Esq., who, with rare generosity, has permitted me to take possession of many specimens, often unique, in this and the allied groups, which were wanting in my collection.

† Before Mr. Wollaston commenced his researches at Madeira and the Canaries, the total number of described species was not above sixty.

### Colydiinæ.

Antennæ concealed at their insertion.
  Antennæ clavate.
    Club of three joints.
      Prothorax smooth.
        Elytra carinate ..... *Irenytha*, n. g.
        Elytra smooth ..... *Ocholissa*, n. g.
      Prothorax grooved.
        Elytra carinate ..... *Anarmostes*, Pasc.
        Elytra smooth ..... *Aulonium*, Er.
    Club of two joints.
      Prothorax elongate, with two impressed lines.. *Phreatus*, n. g.
      Prothorax transverse, with irregular raised lines *Coniophœa*, n. g.
  Antennæ gradually enlarging towards the extremity *Endestes*, n. g.
Antennæ not concealed at the base ..... *Nematidium*, Er.

### Bothriderinæ.

Tarsi with the basal joint elongate ..... *Sosylus*, Er.
Tarsi with the basal joint short.
  Elytra carinate..... *Bothrideres*, Er.
  Elytra not carinate ..... *Minthea*, n. g.

### Cerylonınæ.

Body peltiform ..... *Discoloma*, Er.
Body oblong..... *Cerylon*, Latr.

### Zanclea.

*Caput* immersum, transversum, antice rotundatum. *Oculi* magni, prominentes. *Antennæ* breves, basi tectæ, duodecimarticulatæ, clava biarticulata. *Palpi maxillares* articulo ultimo triangulari. *Prothorax* transversus, lateribus late marginatis, disco utrinque bicostato. *Elytra* carinata, lateribus marginatis. *Tibiæ* filiformes, inermes. *Tarsi* articulis tribus primis brevissimis. *Corpus* ovatum, subdepressum. (Coxæ post. subremotæ. Abd. segm. primo majore.)

A minute peltiform insect, scarcely a line in length, constitutes this singular genus. Its affinities are very uncertain; the greater size of the basal segment of the abdomen would, according to Erichson's arrangement, place it either with the *Colydiinæ* or the *Bothriderinæ*, with neither of which has it any affinity, while the posterior coxæ, separated by a somewhat triangular process, which is rounded, however, to a certain extent anteriorly, cannot be said to be remote, while at the same time they are not approximate. The 12-jointed antennæ are also worthy of notice. There is no antennary groove.

*Zanclea testudinea.* (Pl. V. fig. 5.)

*Z.* fulvo-testacea, nitida; capite inter oculos, prothoracis disco elytrisque maculis nigris, his utrinque tricarinatis.

*Hab.* Ega.

Fulvo-testaceous, shining; head transverse, rounded anteriorly, black between the eyes, lip small, distinct; antennæ testaceous, short, concealed at the base, twelve-jointed, the first two moderately elongate, incrassate, the remainder to the tenth gradually diminishing in length, the last two forming a large, almost rounded club; palpi pale testaceous, terminal joint of the maxillary obliquely triangular, of the labial subcylindrical; prothorax sparsely punctured, transverse, bisinuate anteriorly, the lateral margins rounded and dilated, two slightly raised costæ on each side, with a dark ill-defined black patch on the disk; scutellum small, scutiform; elytra a little wider than the prothorax and closely connected to it at the base, the lateral margins dilated, with three carinæ on the middle of each, several black spots on the disk which unite to form an O-shaped mark, from which diverge towards the anterior angles and posteriorly four obscure spots; body beneath testaceous, shining, with scattered linear punctures; legs pale testaceous; femora robust; tibiæ subfiliform, unarmed; tarsi with the claw-joint much longer than the three basal joints together. Length 1 line.

*Bitoma socialis.*

*B.* angusta, rufo-fusca; prothorace subquadrato, utrinque bicostato, basi lineis duabus elevatis V-formibus signato; elytris quinquecostatis, singulis medio rufo vittatis.

*Hab.* Ega.

Narrow, dark reddish brown, on each elytron a broad central reddish stripe; head closely and coarsely punctured, an impressed line in front which divides between the eyes, and terminates on each side in a hollow on the dilated portion above the insertion of the antennæ; prothorax transversely subquadrate, the margins crenated, with two costæ on each side, which are slightly curved inwards anteriorly, and at the base between them two elevated lines forming a narrow V-shaped mark; scutellum transverse; elytra 5-costate, with two rows of coarse punctures in the intervals; body beneath and legs rufous brown; antennæ dark brown. Length $1\frac{1}{4}$ line.

Beneath the bark of Inga trees in "numerous assemblages."

*Bitoma pauxilla.*

*B.* angusta, ferruginea; prothorace subquadrato, utrinque bicostato, basi lineis duabus elevatis parallelis distantibus; elytris 5-costatis.

*Hab.* San Paulo.

Smaller and narrower than the last, uniformly ferruginous; head finely granulate, slightly convex in front; prothorax nearly quadrate,

granulate, the margins crenate, two costæ on each side, the inner very slightly curved anteriorly, the base with two distant, parallel, elevated lines, which are scarcely half the length of the prothorax; scutellum punctiform; elytra 5-costate, the intervals with a double row of shallow punctures; body beneath brownish ferruginous, closely punctured; antennæ and legs ferruginous; eyes black. Length 1–1¼ line.

*Bitoma jejuna.*

Pascoe, huj. op. i. p. 102.

In my description of this species the prothorax was stated to have three costæ on each side; it would have been better, however, to consider the innermost as a mere duplicature of the second, as has been done in the preceding species. The comparative characters of the three Amazons species may be tabulated thus:—

Prothorax with two elevated lines at the base.
These lines converging posteriorly to form a V-shaped mark ..... *B. socialis.*
These lines not converging, but distant and parallel .... *B. pauxilla.*
Prothorax without any lines at the base..... *B. jejuna.*

*Phlœodalis raucus.* (Pl. V. fig. 7.)

*P.* fuscus, opacus, scaber, setulosus; elytris punctato-striatis, interstitiis alternis elevatis.

*Hab.* Ega.

Oblong-ovate, dull reddish brown, opake, whole surface rough with coarse punctures and sparsely covered with minute setulæ; head short, semicircular, slightly convex; epistome transverse, very short, hiding the lip; antennæ reddish ferruginous; prothorax transverse, bisinuate in front, rounded and margined at the side, slightly lobed behind, the disk flat, between it and the margin on each side an angular line, or, including the angle formed by the disk, two angular lines; scutellum punctiform; elytra punctate-striate, the alternate interstices elevated, the punctures forming large shallow squarish impressions, the setulæ arranged in rows; body beneath dull brown, coarsely punctured; legs and palpi reddish ferruginous. Length 1½ line.

The position which Erichson has assigned to *Phlœodalis*, in conjunction with the short description, leave no doubt on my mind that I have correctly referred the above to this genus. It is closely allied to *Bitoma*, and differs principally in the possession of antennary grooves, as well as a depression beneath each anterior angle of the prothorax for the reception of the club. I do not find, however, that this antennary groove is *straight* (gerade) as Erichson states, but, on the contrary, it is curved round the whole lower portion of

the eye, so as completely to receive the antenna, except the club, which, as just stated, is lodged in the adjoining portion of the propectus. The groove is remarkably well developed, more so indeed than in any Colydian I have yet examined. The form of the tibiæ is for me *not* linear, but what I have called "trigonate" or "subtrigonate," *i. e.* more or less increasing in breadth from the proximal to the distal extremity. It is very probable that Erichson's species, which he has neither named nor described, is different from this.

*Distaphyla mammillaris.*

Pascoe, huj. op. i. p. 104.—Ega?

Three new species, unknown to me when I described this genus*, render it necessary to modify the diagnostic characters of the type, which should now stand thus:—

*D.* subcylindrica, picea (vel rufo-picea); prothorace lobis profunde divisis, spatio postico triangulari, minuto, opaco; antennis ferrugineis.

In the generic characters the prothorax was described as "very irregular anteriorly," a phrase which was intended to include any modification not at that time foreseen; but in the four species now before me it is so uniformly peculiar that, I think, a "prothorax bilobed anteriorly" (possibly, in some species yet unknown, to be united into a single lobe) should be adopted as the most distinctive feature of the genus. Mr. Bates does not appear to have made any notes of their habits. All the species are covered with small granulations or tubercles, from each of which generally arises a short stiff seta. The scutellum is very small, and just perceptible with a strong lens. The fourth abdominal segment is much smaller than the preceding, and the first is not larger than the second. The posterior coxæ are scarcely approximate, and certainly are not contiguous.

A fourth species, from Mysol, will be described in a separate paper devoted to Mr. Wallace's Colydiidæ from the Indian Islands. Although exceedingly like the above, it may be at once distinguished by the sides of the prothorax being *parallel*.

*Distaphyla Batesii.*

*D.* subcylindrica, obscure picea; prothorace lobis leviter divisis, spatio postico parum triangulari, tuberculato; antennis nigris.

*Hab.* Ega.

Subcylindrical, dull pitchy, covered with short stiff setæ arising from coarse tubercles; head short, with a semicircular impressed line between

* *Distaphyla* is = *Ogcodera* of Dejean's Catalogue.

the eyes; prothorax with its two lobes not deeply divided, and only slightly separated behind from the rest of the prothorax, an irregular smooth cavity on each side anteriorly; elytra seriate-granulate, setose; body beneath and legs black, coarsely punctured, and with scattered stiff hairs; antennæ black. Length 3 lines.

Extremely like *Distaphyla mammillaris*, but with lobes less deeply separated from the prothorax, and scarcely any trace of the triangular space behind them, the sides of the prothorax anteriorly with a large smooth excavation which does not exist in the former species, although there is a sort of break in the much larger tubercles, accompanied with correspondingly deeper intervals between them, as if Nature only just contemplated the step she afterwards takes.

*Distaphyla speculifera.*

*D.* subcylindrica, picea; prothorace linea inter lobos et spatio triangulari postico lævissimis, nitidis.

*Hab.* Ega.

Subcylindrical, pitchy, setosely tubercular; head with a deep transverse hollow between the eyes; prothorax with its lobes separated from each other by a smooth shining line, which is also continued round to their sides and behind them, and a large but rather narrowly triangular very smooth and glossy space extending back to within a third of the total length of the prothorax, beneath this on each side a large triangular excavation nearly filled in with two irregular protuberances; elytra seriate-granulate, setose; body beneath rugosely punctate, covered with short stiff hairs; antennæ dark brown. Length 3 lines.

The remarkable triangular space behind the prothoracic lobes, smooth and glossy as a mirror, will at once distinguish this species. The lateral impression, of a triangular form with the base anterior, occupies nearly the whole length of the side, and is nearly filled in by two irregular protuberances, the anterior largest and glossy, the posterior opake.

*Acropis aspera.*

Pascoe, huj. op. i. p. 106.—Ega.

IRENYTHA.

*Caput* exsertum, subquadratum, convexum. *Antennæ* basi tectæ, clava triarticulata. *Prothorax* elongatus, subcylindricus, lateribus rectis submarginatis. *Elytra* parallela, costata, apice declivia. *Tibiæ* subtrigonatæ, calcaratæ. *Tarsi* graciles, articulo basali subelongato. *Corpus* subcylindricum.

My specimen being unique, I am unable, unfortunately, to say anything of the trophi of this genus. It appears to be very closely

allied to *Colydium*, but to differ in its perfectly smooth prothorax; in habit it resembles *Sosylus exilis*.

*Irenytha sosyloides.* (Pl. V. fig. 4.)

*I.* elongata, castanea, nitida; elytris modice carinatis, interstitiis biseriatim punctatis.

*Hab.* Ega.

Elongate, narrow, reddish chestnut, shining; head slightly exserted, subquadrate, a slightly impressed triangular mark in front; eyes large, lateral, nearly round; antennæ ferruginous, longer than the head, the basal joint incrassate, concealed at its insertion, the second only a little larger than the third, the remainder to the eighth gradually becoming shorter, the last three forming a club, which is about one-third of the total length of the antenna; prothorax elongate, subcylindrical, the sides straight, slightly and gradually contracting towards the base, truncate anteriorly, moderately punctured; scutellum rounded posteriorly; elytra broader than the prothorax at the base, the sides parallel, the posterior third sloping towards the apex, each with four (including the sutural) slightly elevated but rather broad lines, which are irregularly punctured, the interstices with two rows of punctures; legs pale ferruginous; tibiæ subtrigonate, shortly spurred at the extremity; tarsi slender, the basal joint a little longer than the succeeding one, claw-joint shorter than the three basal joints together; body beneath dark chestnut, rather remotely punctured; first segment of the abdomen scarcely larger than the second, its interfemoral process very narrow, dividing the posterior coxæ. Length $1\frac{1}{2}$ line.

Ocholissa.

*Caput* retractum, subtriangulare, antice rotundatum, *oculis* prominulis. *Antennæ* 11-articulatæ, basi tectæ, clava triarticulata. *Palpi* crassi, breves, *labiales* obtusi, *maxillares* oblique truncati. *Prothorax* quadratus, lævis. *Elytra* parallela, lævia. *Tibiæ* subtrigonatæ, breviter calcaratæ. *Tarsi* graciles, articulis tribus primis brevibus. *Corpus* elongato-ovatum, subdepressum.

Nearly allied to *Aulonium*, from which it differs in the smooth prothorax, slender, simple tibiæ, and shorter tarsi. Other species of this genus have been detected by Mr. Wallace in New Guinea, and are found also in Batchian, Mysol, Sula, &c.

*Ocholissa læta.* (Pl. V. fig. 1.)

*O.* castaneo-fusca, nitida; elytris tertia antica maculisque magnis duabus apicalibus flavis; antennis pedibusque ferrugineis.

*Hab.* Ega.

Dark chestnut-brown, shining; head somewhat triangular, rounded anteriorly, finely punctured; eyes distant, prominent, close to the pro-

thorax; antennæ ferruginous, as long as the head, covered at their insertion, the two basal joints short, thick, the last three forming a loose, elongate club; palpi short, stout, the maxillary gradually thickening upwards, the terminal joint obliquely truncate, the labial much smaller, obtuse; mentum (?) broadly transverse, contracted posteriorly; labium small, fringed with long hairs; maxillary lobes short, with a narrow border of cilia; mandibles entire at the apex, with three teeth internally, which gradually diminish in size; prothorax quadrate, sparingly punctured; scutellum large, transverse; elytra not broader than the prothorax, seriate-punctate, the anterior third reddish yellow, a large spot of the same colour at the apex of each elytron externally; body beneath reddish yellow; legs ferruginous; tibiæ subtrigonate, rather slender, slightly spurred; tarsi slender, the three basal joints, however, shorter than the last. Length 1 line.

I am in some doubt as to the form of the labium; it appears to be as it is shown in the figure; but the fringe of cilia has a bilobed outline: the mentum has more the form of the jugular plate.

*Aulonium angustatum.* (Pl. V. fig. 15.)

*A.* cylindricum, ferrugineum; fronte bituberculata; prothorace quadrisulcato, medio antice excavato.

*Hab.* San Paulo.

Narrowly cylindrical, ferruginous, very minutely punctured; head rather narrow, with two oblong approximate tubercles in front; prothorax not broader than the head, the sides parallel, with four longitudinal impressed lines, the two central uniting anteriorly and terminating in a broad and deep excavation; scutellum transverse; elytra very smooth, parallel, not broader than the prothorax; body beneath ferruginous; legs nearly testaceous. Length $1\frac{1}{2}$ line.

Easily recognized on account of its narrow cylindrical form. In the rest of the species of this genus collected by Mr. Bates, the body is oblong or oblong-ovate, rather depressed, without any tubercles on the head. The lateral margin is deeply grooved throughout, so as to present, when viewed sideways, a double line, or two margins; and each of the elytra has eight lines of punctures, without including a shorter one (often very imperfectly developed) by the side of the scutellum. *A. propositum*, *A. egens*, and *A. sublæve* closely resemble each other in general appearance, and are allied to the species known as *A. bidentatum*, Fab., but may readily be distinguished by the characters given below. *A. ignotum* and *A. hebes* are very distinct species. *A. oblitum* approaches the smaller individuals of *A. sublæve*; but the more quadrate prothorax, scarcely narrowed in front, will, *inter alia*, distinguish it.

The following table will facilitate the recognition of the Amazons species :—

Prothorax with four impressed lines.
  Sides of the prothorax nearly parallel.
    Prothorax anteriorly with two tubercles ..... *A. oblitum.*
    Prothorax not tuberculate ..... *A. ignotum.*
  Sides of the prothorax rounded and narrower anteriorly.
    Body ovate.
      Elytra with lines of fine punctures ..... *A. sublæve.*
      Elytra with lines of coarse punctures ..... *A. præpositum.*
    Body oblong ..... *A. hebes.*
Prothorax with two impressed lines ..... *A. egens.*

*Aulonium oblitum.* (Pl. V. fig. 14.)

*A.* oblongum, castaneum, nitidum; prothorace quadrisulcato, antice bituberculato, lateribus subparallelis; elytris modice seriatim punctatis.

*Hab.* Ega.

Oblong, dark chestnut, shining; head narrower than the prothorax, finely punctured, an impressed curved line in front of each eye; prothorax finely punctured, nearly quadrate, the sides subparallel or only very slightly rounded, quadrisulcate, with two strongly marked tubercles anteriorly; scutellum transverse; elytra minutely punctured, each with eight rows of larger punctures; body beneath reddish chestnut, with scattered punctures; legs and antennæ ferruginous. Length 2 lines.

*Aulonium ignotum.* (Pl. V. fig. 12.)

*A.* oblongum, ferrugineum, nitidum; prothorace quadrisulcato, haud tuberculato, lateribus subparallelis; elytris leviter seriatim punctatis.

*Hab.* Ega.

Narrowly oblong, ferruginous, slightly shining; head rather short, scarcely narrower posteriorly than the prothorax, sparingly punctured, a short impressed line in front of each eye; prothorax with very minute scattered punctures, quadrate, the sides nearly parallel, the disk with four strongly marked grooves, but no tubercles; scutellum transverse; elytra with eight finely punctured lines on each; body beneath ferruginous, shining, finely punctured; legs and antennæ paler. Length $1\frac{3}{4}$ line.

*Aulonium sublæve.* (Pl. V. fig. 11.)

*A.* oblongo-ovatum, castaneum, nitidum; capitis fronte crebre punctata; prothorace lateribus subrotundatis, antice bituberculato; elytris leviter seriatim punctatis.

*Hab.* Ega.

Oblong-ovate, dark chestnut-brown, shining; head narrower than the prothorax, rather finely punctured, a curved impressed line in front of each eye; prothorax minutely punctured, subquadrate, narrower

anteriorly, the sides slightly rounded, quadrisulcate, with two oblong prominent tubercles anteriorly; scutellum transversely subcordate; elytra reddish chestnut, very minutely punctured, with eight rows of coarser but also minute punctures on each; body beneath reddish chestnut, shining, finely punctured; legs and antennæ ferruginous. Length $2\frac{1}{2}$ lines.

*Aulonium præpositum.* (Pl. V. fig. 10.)

*A.* oblongo-ovatum, castaneum, nitidum; prothorace quadrisulcato, sulcis duobus mediis punctato-impressis, antice subbituberculato, lateribus rotundatis; elytris fortiter seriatim punctatis.

*Hab.* Ega.

Oblong-ovate, reddish chestnut, shining, the head and prothorax darker; head small, much narrower than the prothorax, strongly punctured between the eyes, a very slight impressed line in front of each; prothorax almost impunctate, rather broader than long, much narrower anteriorly, the sides rounded, quadrisulcate, with two small but distinct tubercles in front; scutellum transverse, rounded behind; elytra with eight rows of coarse punctures on each, otherwise impunctate; body beneath reddish ferruginous, with small scattered punctures; legs bright ferruginous; antennæ ferruginous. Length 3 lines.

I have a variety of this species with the tubercles on the prothorax less strongly marked, and fewer punctures between the eyes.

*Aulonium hebes.* (Pl. V. fig. 13.)

*A.* oblongum, rufo-castaneum, nitidum; prothorace quadrisulcato, antice vix tuberculato, lateribus subrotundatis; elytris fortiter seriatim punctatis.

*Hab.* Ega.

Rather narrowly oblong, reddish chestnut, shining; head narrower than the prothorax, coarsely punctured on the vertex, an impressed line between the eyes, and another curved line in front of each; prothorax nearly impunctate, rather broader than long, narrower anteriorly, the sides rounded, quadrisulcate, the two middle sulci formed by deep, coarse punctures more or less interrupted, tubercles nearly obsolete; scutellum transverse, rounded behind; elytra with eight rows of coarse oblong punctures; body beneath pale ferruginous, shining, with small scattered punctures; legs and antennæ pale ferruginous. Length 2 lines.

*Aulonium egens.* (Pl. V. fig. 9.)

*A.* oblongo-ovatum, castaneum, nitidum; prothorace bisulcato (sulcis mediis obsoletis), lateribus rotundatis, antice tuberculis duobus distinctis; elytris leviter seriatim punctatis.

*Hab.* San Paulo.

Oblong-ovate, dark chestnut, shining; head much narrower than the prothorax, finely punctured, the punctures coarse and crowded on the

vertex, a curved impression inside and in front of each eye; prothorax minutely and sparsely punctured, about equal in length and breadth, narrowed anteriorly, the sides rounded, bisulcate, no trace of the two middle sulci, the anterior tubercles very small, but distinct; scutellum transverse, rounded behind; elytra very minutely punctured, with eight lines of very fine punctures on each; body beneath dark chestnut, finely punctured; legs and antennæ pale ferruginous. Length 3 lines.

*Anarmostes laticollis.*

*A.* modice elongatus, piceo-fuscus; prothorace subquadrato; elytris 5-costatis, interstitiis biseriatim punctatis.

*Hab.* Ega.

Moderately elongate, dark pitchy brown; head coarsely punctured; prothorax a little longer than broad, subquadrate, and very slightly contracted at the base, the disk with four costæ, the outermost abbreviated, the intervals with large shallow punctures; scutellum not hollowed out; elytra parallel, each with five well-marked costæ, the intervals with a double row of large irregular punctures; body beneath dark brown, the pectus granulated, the abdominal segments with numerous very delicate longitudinal but more or less interrupted lines; legs pitchy brown, roughly punctured; tarsi and antennæ ferruginous. Length 4 lines.

Resembling *Anarmostes sculptilis* from Rio; but a much shorter prothorax, scarcely contracted at the base, no appearance of granulations in the intervals of the costæ on the elytra, and the scutellum free from the deep central impression of that species will serve, among other characters, to distinguish it. In proposing the genus *Anarmostes* (huj. op. vol. i. p. 110), I spoke of it as being allied to *Sosylus*; the posterior coxæ, however, although not contiguous, are sufficiently approximate to bring it into the series of those genera which group themselves around *Colydium*.

*Anarmostes bicolor.*

*A.* angustior, fuscus; prothorace subelongato, basi angustiore; elytris rufo-castaneis, 5-costatis, interstitiis biseriatim punctatis.

*Hab.* Ega.

Narrower than the last, the prothorax longer and more contracted at the base, dark brown in colour, while the elytra and legs are of a chestnut-red; the abdomen, dark brown beneath, has the longitudinal lines coarser and more marked. In *Anarmostes sculptilis* the prothorax is still longer and more contracted at the base, while it is also broader in front, and the elytra are proportionally longer than in either of the two other species. Length 4 lines.

PHREATUS.

*Caput* exsertum, subquadratum, fronte impressa. *Oculi* majusculi, prominuli. *Antennæ* crassæ, basi tectæ, clava vix conspicua, biarticulata. *Prothorax* elongatus, parallelus, disco lineis duabus impressis, lateribus submarginatis. *Elytra* subdepressa, oblonga. *Tibiæ* trigonatæ, antice breviter calcaratæ. *Tarsi* breves, incrassati. *Corpus* angustulum, subdepressum.

The short tarsi, combined with the biarticulate and but slightly marked club of the antennæ, will at once distinguish this from any other genus of its subfamily. In other respects, its long prothorax, which is not much shorter than the elytra, with its two longitudinally impressed lines, are peculiarly characteristic.

*Phreatus rigidus.* (Pl. V. fig. 3.)

*P.* piceus, nitidus; elytris striatis, interstitiis uniseriatim punctatis, basi triangulariter elevatis.

*Hab.* Ega?

Pitchy, shining; head subquadrate, a longitudinal impressed line on each side, connected in the middle by a transverse one; eyes black, oblong, prominent; antennæ robust, the basal joint covered at its insertion, slightly incrassate, the last two joints forming a narrow, ovate club; prothorax elongate, truncate in front, the sides nearly parallel, narrowly margined, the disk with two strongly impressed longitudinal lines, and at about two-thirds of its length posteriorly a large deep fovea on each side near the margin; scutellum punctiform; elytra slightly depressed, subparallel, a triangular raised space at the base, behind which on each elytron are two strongly marked, nearly impunctate striæ, the interstices (three) with a single irregular line of punctures, towards the side two or three other lines; legs robust, femora clavate; tibiæ trigonate, the anterior with a single spur, the posterior lobed internally at its extremity; tarsi short, terete. Length 1 line.

CONIOPHÆA.

*Caput* insertum, subquadratum, lateribus reflexis. *Antennæ* basi tectæ, clava biarticulata, sulcis antennariis brevibus. *Mentum* transversum, antice angustatum, ciliatum. *Prothorax* subquadratus, disco irregulariter costato, lateribus marginatis. *Elytra* carinata. *Tibiæ* breves, subtrigonatæ, muticæ. *Tarsi* articulis primis brevibus. *Corpus* ovatum, depressum.

*Coniophæa* is a very distinct genus, but which, except for its antennary grooves and the large basal segment of the abdomen, would approximate to *Bitoma*. In Erichson's arrangement it will stand near *Eulachus*, which has no antennary grooves, the costæ of the prothorax simply longitudinal, and the body subcylindrical. In

a type specimen of *Eulachus costatus* which I have received from Dr. Schaum, I find all the abdominal segments to the fourth inclusive gradually diminishing in size, the first being very little larger than the second. In this respect, and in the relative position of the posterior coxæ, we find gradations that often render the application of these characters very uncertain. The structure of the mentum is somewhat peculiar: it is shortly transverse, narrowing considerably anteriorly, its two sides fringed with long hairs, and strengthened on its external surface by a curved, strongly elevated line which leaves a very decided hollow behind it.

*Coniophœa exarata.* (Pl. V. fig. 8.)

*C.* dense griseo tomentosa; elytris fortiter costatis, interstitiis profunde sulcato-punctatis.

*Hab.* Ega.

Slightly oblong-ovate, covered with a short, very dense, greyish tomentum; head subquadrate, deeply inserted in the prothorax, concave in front, the sides reflected; eyes lateral, oblong; antennæ short, robust, the two basal joints incrassated, the last two forming a short compressed club, the seven intermediate slightly transverse; mentum transverse, narrowed and ciliated in front; labium large, slightly transverse and somewhat rounded anteriorly; labial palpi slender, the terminal joint ovate-elongate; maxillary lobes narrow, especially the inner; maxillary palpi robust, the terminal joint ovate, obtuse; prothorax subquadrate, bisinuate anteriorly, the central part forming a short rounded lobe, advancing on the head, the sides nearly straight, narrowly margined, posteriorly closely connected to the elytra, the disk with two sinuous elevated lines on each side, the outermost incurved anteriorly, centre of the disk with a slightly impressed longitudinal line; scutellum punctiform; elytra a little broader than the prothorax, each with five strongly elevated lines, including the one at the suture, the interstices with a deeply impressed zigzag line; legs ferruginous, shining; tibiæ short, subtrigonate, unarmed; tarsi with the three basal joints shorter than the claw-joint; body beneath dark brown, rugosely punctured, the abdominal segments with a row of longitudinal elevated lines at the base. Length $1\frac{2}{3}$ line.

ENDESTES.

*Caput* paulo exsertum, subquadratum, lateribus reflexis. *Oculi* magni, transversim ovati. *Antennæ* basi tectæ, 11-articulatæ, sensim incrassatæ. *Prothorax* elongatus, postice contractus, antice truncatus, medio bicarinatus, lateribus infra excavatis. *Elytra* elongata, subcylindrica, carinata. *Pedes* robusti; *tibiæ* subtrigonatæ, vix calcaratæ; *tarsi* articulis tribus primis brevibus. *Corpus* elongatum, cylindricum.

*Mecedanum*, shortly characterized by Erichson, appears to be re-

lated to this genus, but differs from it in the length of the basal joint of the tarsi. The parts of the mouth, which I had taken out of one of my two specimens, have been unfortunately mislaid, but I do not think that they presented anything peculiar.

*Endestes incilis.* (Pl. V. fig. 2.)

*E.* subnitida; capite prothoraceque fuscis; elytris castaneis; antennis pedibusque ferrugineis.

*Hab.* Ega?

Slightly nitid, dark brown, the elytra chestnut-brown; head slightly exserted, subquadrate, rounded anteriorly, the sides considerably reflexed, especially above the eyes, and there terminating abruptly, the front scarcely concave, closely and coarsely punctured; antennæ ferruginous, hidden at the base, longer than the head, the two basal joints scarcely thicker than the third, the remaining joints becoming gradually transverse and enlarging to the eleventh, which is compressed and shortly ovate; mandibles entire at the apex; eyes large, rugose, transversely ovate; prothorax elongate, subcylindrical, gradually narrowing posteriorly, a shallow longitudinal groove in the middle, bounded on each side by a broad ill-defined carina and covered with large irregularly crowded punctures, slightly margined laterally, the margin posteriorly curving over the broadly excavated sides; scutellum small, pointed behind; elytra parallel, two of the carinæ on each more prominent than the rest, especially towards the apex, where they curve outwardly, the interstices with a double row of large, coarse punctures, giving the intervals a granulated appearance; body beneath dark brown, shining, rather closely punctured; legs stout, ferruginous; tibiæ subtrigonate, scarcely spurred; tarsi with the three basal joints scarcely as long as the fourth. Length $2\frac{1}{2}$ lines.

*Nematidium mustela.*
Pascoe, ante, p. 34.

The type specimen of this species is from Rio, and in the collection of Alexander Fry, Esq. Two smaller specimens, which appear to me to be identical, are also in that gentleman's possession, and are labelled "Amazons, Bates." I owe my example to my friend Edward Sheppard, Esq., from whom I received it without a locality; but it is also no doubt from the Amazons.

*Nematidium filiforme.*

*N.* ferrugineum; capite antice valde convexo; elytris leviter striato-punctatis.

*Hab.* Ega.

Linear, elongate, ferruginous; head finely punctured, very convex in

front, the eyes rather large, black; prothorax less than half the length of the elytra, finely punctured, the sides incurved; scutellum small, triangular; elytra striate-punctate, the punctures rather minute, the interspaces slightly punctured; body beneath finely punctured; legs pale ferruginous. Length $1\frac{2}{3}$ line.

A still more slender form than *Nematidium mustela*, the head shorter and very convex, the elytra longer in proportion to the prothorax, and the scutellum triangular and more depressed.

*Bothrideres latus.*
Pascoe, huj. op. i. p. 109.

This species in size and outline resembles the Australian *Bothrideres illusus*; but the prothorax with its deeply impressed discal line, including a bilobed or transversely cordate space, and tricostate on each side, will distinguish it from all other described species. Indeed, the last character renders it doubtful whether it ought not to form a distinct genus. The only specimens I have seen were taken at Santarem, under bark.

*Bothrideres succineus.*
Pascoe, huj. op. i. p. 108.

Another well-marked species, and at once distinguished from all other Colydians by the presence of two pellucid amber-coloured tubercles on the centre of each elytron. It should probably also constitute a new genus. I omitted to mention the tibiæ in my description; they are robust, strongly toothed along the external edge, and the anterior decidedly trigonate, with a strong curved spine at each of the two distal angles. It occurs at Rio as well as at Ega.

*Sosylus sulcatus.*
Pascoe, huj. op. i. p. 109.

This species is at once separated from the rest of the genus known to me by a delicate median line on the prothorax, terminating between two shorter impressed lines at the base. A slight approach to this structure is seen in a small and shallow impression in *Sosylus terebrans*, in two short but almost obsolete lines in *Sosylus duplicatus*, and an almost obliterated semilunar mark in *Sosylus castaneus* and *S. exilis*. Another species, from Rio, has the front of the head divided vertically by a groove, gradually increasing in breadth, so as to give the clypeus a somewhat bilobed appearance. I have named

it *Sosylus Squirei**, after the ardent collector who discovered it, and who, unfortunately for science, has since fallen a victim to yellow fever. All the species have the prothorax impressed with shallow oblong punctures, differing, however, in size; and the elytra, which have four carinæ on each, are deeply fluted posteriorly, less so at the base, the sculpture of the interstices varying. According to Mr. Bates's notes they "drill into the solid wood of Ingá trees," and run "very nimbly over the trunks of dead trees." The larvæ are wood-eaters.

The species described below may be tabulated thus:—

Elytra, between the carinæ,
- smooth, or with a few almost obsolete punctures .... *S. exutus.*
- with punctures crowded at the base, afterwards with..
  - a double row of punctures ..... *S. duplicatus.*
  - a single row of punctures ..... *S. cursorius.*
- with shallow punctiform impressions resembling lines . *S. terebrans.*
- with three well-defined continuous impressed lines .....
  - Prothorax coarsely punctured ..... *S. castaneus.*
  - Prothorax finely punctured *S. exilis.*
- with two well-defined impressed lines and a middle interrupted one ..... *S. crassus.*

*Sosylus exutus.*

*S.* picco-fuscus, nitidus; prothorace antice latiore, leviter punctato; elytris fortiter carinatis, interstitiis lævibus.

*Hab.* Ega?

Dark pitchy brown, shining; head rather narrower than the prothorax, finely punctured, short and convex in front, the clypeus rounded and hiding the lip; prothorax subelongate, broadest anteriorly, finely punctured; scutellum small, elongate; elytra with broad, stout carinæ, the interstices nearly smooth or with a few almost obsolete punctures; body beneath dark brown, shining, sparsely punctured, the punctures on the abdomen larger; legs and antennæ ferruginous. Length $2\frac{1}{2}$ lines.

I have a single and not very perfect specimen of this species, which I received from W. W. Saunders, Esq. It is somewhat more massive than the others, except *Sosylus crassus*.

* *Sosylus Squirei.* *S.* niger, subnitidus; capitis fronte sulcata; prothorace ovato, leviter punctato; elytris interstitiis lineatis minutis longitudinalibus impressis.

*Hab.* Rio.

In addition to the sulcated front, this species is distinguished by the depression of the carinæ at the base of the elytra, and by the interstices, which are marked by numerous short and very minute longitudinal lines, giving them a roughish and somewhat opake appearance. Length 2 lines.

*Sosylus duplicatus.*

*S.* rufo-fuscus vel fuscus, vix nitidus; prothorace subelongato, ovato, crebre punctato, basi lineis duabus leviter impressis; elytris modice carinatis, interstitiis basi crebre, postea biseriatim punctatis.

*Hab.* Ega.

Dark brown or reddish brown, scarcely shining; head nearly as wide as the prothorax, finely punctured, rather broad and convex in front, the clypeus nearly truncate, hiding the lip; prothorax elongate-ovate, the anterior two-thirds rounded at the sides, finely punctured, the base with two nearly obsolete impressed lines; scutellum oblong-ovate; elytra with the carinæ not nearly so broad as the interstices, the punctures crowded at the base, afterwards in two rows; body beneath reddish brown; legs and antennæ reddish ferruginous. Length 2 lines.

*Sosylus cursorius.*

*S.* fuscus, subnitidus; prothorace antice latiore, fortiter punctato; elytris late carinatis, interstitiis basi dense, postea uniseriatim punctatis.

*Hab.* Ega.

Dark brown, subnitid; head slightly narrower than the prothorax, rather strongly punctured, convex in front, the clypeus somewhat contracted, truncate, not hiding the lip; prothorax subelongate, broadest anteriorly, coarsely punctured; scutellum subtriangular, rounded behind; elytra with the carinæ nearly as broad as the interstices, the latter with three and two rows of punctures at the base (about $\frac{1}{4}$ the length of the elytra), diminishing to a single row for the rest; body beneath subnitid, sparsely covered with fine linear punctures; leg s dar ferruginous; antennæ bright ferruginous. Length 2 lines.

*Sosylus castaneus.*

*S.* rufo-castaneus, vix nitidus; prothorace antice latiore, fortiter punctato; elytris interstitiis trilineato-impressis.

*Hab.* Ega.

Narrow, subcylindrical, reddish chestnut, scarcely shining; head as broad as the prothorax, sparingly punctured, convex in front, the clypeus rounded; prothorax elongate, broadest anteriorly, rather coarsely punctured, an almost obsolete semilunar impression at the base; scutellum oblong; elytra with narrow carinæ, the interstices with three well-defined impressed lines; body beneath reddish chestnut, with scattered, short, oblong impressed lines, closer and coarser on the abdomen; legs reddish ferruginous; antennæ brown; palpi yellowish ferruginous; eyes black. Length 2 lines.

*Sosylus terebrans.*

*S.* ferrugineus, subnitidus; prothorace ovato, leviter punctato, basi impresso; elytris modice carinatis, interstitiis sublineatis vel punctato-lineatis.

*Hab.* Ega.

Ferruginous, darker posteriorly, subnitid; head about as broad as the prothorax, finely punctured, convex in front, the clypeus not hiding the lip; prothorax elongate, the anterior half rounded at the sides, finely punctured, the base with a small, shallow, squarish impression; scutellum elongate; elytra with rather narrow carinæ, the interstices with punctiform impressions, having the appearance of short interrupted lines in the intervals; body beneath ferruginous, with small, rather sparse punctures; antennæ and legs ferruginous. Length $1\frac{3}{4}$ line.

*Sosylus exilis.*

*S.* angustior, rufo-castaneus, vix nitidus; prothorace antice latiore, leviter punctato; elytris interstitiis trilineato-impressis.

*Hab.* Ega.

Narrower than the last, subcylindrical, reddish chestnut, coarsely shining; head as broad as the prothorax, convex and rather short in front, finely and closely punctured; prothorax elongate, broadest anteriorly, finely punctured, with a nearly obsolete semilunar impression at the base; scutellum elongate-triangular; elytra with narrow carinæ, the interstices with three impressed lines; body beneath chestnut-red, with oblong, rather distant punctures; legs reddish chestnut; tarsi of the intermediate pair twice as long as its corresponding tibiæ; antennæ reddish chestnut; eyes black. Length $1\frac{1}{4}$ line.

The smallest and, proportionally, much the narrowest of the genus.

*Sosylus crassus.*

*S.* fuscus, nitidus; prothorace breviter ovato, parce punctato; elytris fortiter carinatis, interstitiis lineis tribus impressis, media interrupta.

*Hab.* San Paulo.

Shortly subcylindrical, dark chestnut-brown, shining; head sparingly punctured, convex in front, the edges slightly rising above the eyes and terminating in a broadly emarginate clypeus, beneath which the lip is inserted; prothorax shortly ovate, sparingly punctured, especially in front, an irregular transverse cleft close to the base, the sides narrowly margined; scutellum oblong-ovate; elytra strongly keeled, the interstices with three well-defined impressed lines, the middle one interrupted at short intervals; body beneath chestnut-brown, shining, finely and sparingly punctured, the punctures on the last four abdominal segments coarser and closer; legs and antennæ pitchy brown; palpi ferruginous. Length 4 lines.

The largest species of the genus, and differing in its shorter and broader prothorax from the other members of it. The head is concave in front like *Metopiestes**; and taking *all* the species of both genera into consideration, I am unable to detect any characters by

* I have now three species of this genus, two of which are undescribed.

which they can be *certainly* distinguished; nevertheless the shorter and more turgid prothorax of *Metopiestes* gives it quite a different generic habit, although the force of this is much weakened by the species just described. The form of the front and of the clypeus, the position of the lip, the depth and extent of the antennary canal and its influence in modifying the outline of the eye, and the relative sizes of the two club-joints seem to afford only specific characters. Both genera are nearly allied to *Petalophora*, Westw., which, but for its club and prothorax, would be quite as difficult to diagnose; and these peculiarities might at any time lose their importance by the discovery of other species.

### Minthea.

*Caput* retractum, triangulare; *oculis* prominulis. *Antennæ* subelongatæ, liberæ, 11-articulatæ, clava magna, biarticulata. *Prothorax* subquadratus, antice rotundatus. *Elytra* parallela. *Tibiæ* subtrigonatæ, calcaratæ; *tarsis* brevibus. *Corpus* breviter cylindricum. (*Coxæ* post. subremotæ. *Abd.* segm. primo majore.)

These characters are drawn up from two species which resemble each other so closely as for the moment to be scarcely distinguishable; one of these is from Ega, the other from New Guinea. Besides the unusual length of the antennæ, for this family, and the form of the club, which is remarkable for its size, especially of the last joint, the mentum is broadly transverse and rounded anteriorly, and the lip is very small and apparently triangular; but this is probably owing to the accidental adhesion of longly ciliated paraglossæ as in *Apeistus*. In Erichson's arrangement, this genus, owing to the position of the coxæ, and the large basal abdominal segment, would be placed with *Bothrideres* and *Sosylus*; in habit it bears a certain general resemblance to some Bostrichidæ, especially to *Tomicus*.

### *Minthea squamigera.* (Pl. V. fig. 6.)

*M.* brunnea; prothorace convexo, squamoso; elytris squamoso-lineatis; antennarum articulo ultimo elongato.

*Hab.* Ega.

Reddish brown; head rather broadly triangular, with erect scattered scales in front; eyes large, prominent, close to the prothorax; antennæ reaching to the base of the prothorax, free at their insertion, the two basal joints a little incrassated, the third and fourth gradually shorter, the rest to the ninth transverse, the tenth and eleventh forming an elongate club, the eleventh especially produced; palpi somewhat fusiform, pointed; maxillary lobes with long cilia, the inner broader and shorter; mentum nearly semicircular, labium minute, paraglossæ (?) ciliated; prothorax a little broader than the head, subquadrate, con-

vex, rounded anteriorly and posteriorly, covered with erect, scattered, greyish scales; scutellum small, round; elytra scarcely broader than the prothorax, parallel, rounded at the apex, each with six lines of closely placed semierect greyish scales; body beneath reddish chestnut, scarcely punctured, the abdomen with a few short elevated longitudinal lines; legs short, reddish chestnut; tibiæ short, subtrigonate; tarsi nearly as long as the tibiæ, the last joint longer than the others together. Length 1 line.

*Discoloma orbicularis.*

*D.* rotundata, convexa, picea; elytris punctulatis, punctis majoribus intermixtis, humero calloso.

*Hab.* Ega.

Nearly orbicular, convex, pitchy brown, with a very fine but somewhat sparse pubescence; head very small; antennæ about twice as long as the head; prothorax minutely punctured, very transverse, the dilated borders on each side forming two-thirds of its breadth at the base; scutellum triangular; elytra as broad as long, very minutely punctured, with larger punctures interspersed on the disk, near each shoulder a small callosity, the dilated margins subdiaphanous, irregularly waved at their junction with the disk anteriorly, with five or six raised lines on each side, between which the margin is finely plaited; body beneath pale brown, finely punctured; the legs nearly testaceous. Length $1\frac{1}{2}$ line.

At once distinguished by its greater size, its orbicular outline, and its greater convexity of surface.

*Discoloma paulla.*

*D.* ovata, depressa, obscure testacea; elytris fere impunctatis, limbo distincto, humero calloso.

*Hab.* Ega.

Shortly ovate, depressed, dull testaceous, almost obsoletely punctured, and very finely pubescent; head small; eyes dark brown; prothorax with its dilated borders on each side at the base passing gradually into the disk; scutellum small, triangular; elytra longer than broad, the dilated margins opake, very distinct, not waved nor plaited, their edges with three or four raised points on each side, the shoulder with a small callosity; body beneath and legs dark testaceous. Length $\frac{3}{4}$ line.

The narrowest of the five* species known to me, and very distinct, as a comparison of the descriptions will show.

* One of these, *Discoloma Fryi*, is described in the first volume of this work (p. 115). Another I have received from M. Deyrolle, under the name of "*Thyreosoma Mexicanum*, Chevr." It is a broadly ovate, subdepressed insect, with a dark-brown prothorax, the dilated margins of the elytra less distinctly separated

*Cerylon humile.*

*C.* oblongum, rufo-ferrugineum, nitidum; prothorace transverso, fortiter punctato, lateribus subrotundatis; elytris subparallelis, seriatim punctatis.

*Hab.* Ega?

Much smaller than *Cerylon angustatum*, Er.; the prothorax transverse, with its sides slightly rounded, without any impressions at the base, and the elytra nearly parallel, and seriate-punctate rather than punctate-striate. Length $\frac{2}{3}$ line.

Of several species of *Cerylon* now before me, all very closely connected, this, I think, approaches most to the European *Cerylon angustatum*, Er., from which it differs principally in the characters of its prothorax and elytra as given above.

EXPLANATION OF PLATE V.

Fig. 1. *Ocholissa læta.*
„ 2. *Endestes incilis.*
„ 3. *Phreatus rigidus.*
„ 4. *Irenytha sosyloides.*
„ 5. *Zanclea testudinea.*
„ 6. *Minthea squamigera.*
„ 7. *Phlœodalis raucus.*
„ 8. *Coniophæa exarata.*
Fig. 9. *Aulonium egens* (prothorax).
„ 10. —— *præpositum* (id.).
„ 11. —— *sublæve* (id.).
„ 12. —— *ignotum* (id.).
„ 13. —— *hebes* (id.).
„ 14. —— *oblitum* (id.).
„ 15. —— *angustatum* (id.).

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## IX.—*On the Canarian* Longicorns.

By T. Vernon Wollaston, M.A., F.L.S.

Of the sixteen Longicorns enumerated below, only nine, I imagine, can be regarded as *certainly* indigenous to the Canarian archipelago, —the remaining seven having, in all probability, either become naturalized, or else accidentally introduced from other countries. However, of the two *Clyti* and the *Hesperophanes roridus*, which I have included amongst the seven doubtful species (and which were recorded originally from the scanty material amassed by MM. Webb and Berthelot), I am unable to speak with any precision, since they

from the disk, and the humeral callosity not very apparent. It is also more opake, and covered with a sparse woolly pubescence. I add the diagnoses of this and the typical species, named but not described by Erichson.

*Discoloma vestita.* Ovata, depressa, testaceo-brunnea, obscure griseo-pubescens; elytris impunctatis, humero vix calloso.

*Hab.* Mexico.

*Discoloma parmula* (Er.). Ovata, depressa, flavo-brunnea, nitida; elytris sparse punctatis, limbo distincto, humero calloso.

*Hab.* Cuba.

Size and form of *Discoloma paulla*, but darker and nitid, with the elytra rather coarsely punctured.

have altogether escaped the observations both of myself and other recent collectors in those islands. Nevertheless, since one of these three (the *C. Webbii*) was considered even by M. Brullé to be identical with the *C. 4-punctatus*, Fab., I think it is more than possible that the specimen (or specimens) on which their admission into the fauna respectively rests was a mere chance importation, picked up by Mr. Webb in or near some one of the towns. At the same time I must confess that, until the ancient Pinals of a high elevation have been accurately examined, I would not wish to treat this (however probable) as more than a conjecture, inasmuch as I cannot but feel a suspicion that they *may* perhaps (all or in part) have been procured from the old pine-forests, whence, at any rate, a *few* of Mr. Webb's insects unquestionably came. Be this, however, as it may, I think certainly that the *chances* are in favour of their having been accidentally introduced (possibly with foreign timber); and therefore I consider it safer for the present to place them amongst the forms whose claims to be truly indigenous, to say the least, require corroborating.

Whether the *Clyti*, however, and the *Hesperophanes roridus* be naturalized or not, I believe that the other four species (namely, the *Hylotrupes bajulus*, *Criocephalus rusticus*, *Hesperophanes senex*, and the *Gracilia pygmæa*) most decidedly are so; and I am equally satisfied that the remaining nine included in this paper are strictly and emphatically indigenous—their *modus vivendi*, and other local considerations, rendering this to my mind quite unequivocal. So that, when we take into account the excessive scarcity of the Longicorns in the various Atlantic Islands (only *three* out of the eleven species of the *Madeiran* group being positively endemic), it will be admitted that *nine* for the Canaries is a larger number than would have been *à priori* anticipated.

In the following pages I have marked those species with an asterisk which I imagine to be essentially, and without doubt, truly indigenous.

### Fam. **Cerambycidæ.**

#### Genus Hylotrupes.

Serville, Ann. de la Soc. Ent. de France, iii. 77 (1834).

##### 1. *Hylotrupes bajulus.*

*Cerambyx bajulus*, Linn., Fna Suec. 489 (1746).
*Callidium bajulus*, Brullé, in Webb et Berth. (Col.) 62 (1838).
*Hylotrupes bajulus*, Woll., Cat. Mad. Col. 125 (1857).

*Habitat* Teneriffam, in urbe ipsa Sanctæ Crucis haud infrequens; certe introductus.

The common European *H. bajulus*, which has been imported likewise into Madeira, I have taken occasionally in Teneriffe, principally in the streets of S^ta^ Cruz, where it is undoubtedly a mere introduction from more northern latitudes. Teneriffan examples have also been communicated by the Barão do Castello de Paiva.

### Genus Blabinotus.

Wollaston, Ins. Mad. 425 (1854).

Although very nearly allied to *Oxypleurus* of Mulsant, for a type of which (the *O. Nodieri*) I am indebted to Mr. Pascoe, I believe that the present genus is truly distinct from it. In their cylindrical bodies and laterally-spinose prothoraces, as well as in their colour, sculpture, and clothing, the two genera are almost identical. Nevertheless, whilst *Oxypleurus* has the eyes enormous (extending over a large portion of the head, both above and below), very deeply excavated internally and by no means prominent, the head convex, and the antennæ widely separated at their base, *Blabinotus*, on the contrary, has the eyes *comparatively* small, and consequently remote from the antennæ, hardly at all scooped-out, and excessively prominent, the head more uneven, and the antennæ more approximated at their base. In *Oxypleurus*, likewise, the prothorax is short, subsinuate and drawn-in (or truncated) at its anterior edge, and (with the exception of the lateral spine) is rounded, even, and convex, and the antennæ have their third joint perceptibly shorter than the fourth; whereas in *Blabinotus* the prothorax is more elongate, elevated (and, if anything, somewhat produced) in the centre anteriorly, binodose on its disk and extremely uneven, and the third antennal articulation is a trifle longer than the fourth. With external differences such as these, I think it is more than probable that an accurate comparison of the oral organs of the two groups would tend still further to remove them from each other. I believe, however, it will be found, on a closer examination, that, whilst *Blabinotus*, as represented by the *B. spinicollis*, is undoubtedly distinct from *Oxypleurus*, the insect which I described (Cat. Mad. Col. 126, 1857) as the *B. Bewickii* is probably a member of the latter.

Although I am not aware under what circumstances the *Oxypleuri* are usually to be met with in southern Europe, it is at least interesting to remark that, so far as I have myself observed, the habits of the two genera are distinct,—*Oxypleurus* (as represented by the *Bewickii* at Madeira and the *pinicola* at the Canaries) being confined to the pine-trees, whilst *Blabinotus* (also existing in both groups) is no less exclusively attached to the various laurels.

2. **Blabinotus spinicollis.*

*Blabinotus spinicollis*, Woll., Ins. Mad. 426, tab. 9. f. 1 (1854).
—— ——, Woll., Cat. Mad. Col. 126 (1857).

*Habitat* in lauretis parum excelsis Teneriffæ et Palmæ, rarissimus.

This insect, which occurs sparingly (but generally) throughout the laurel-regions of Madeira, is of the greatest rarity at the Canaries, where, in like manner, it appears to be confined to the laurel-woods. I took a single example of it high up in the Barranco de Galga, in the island of Palma, at the end of May 1858; and another at the end of June of the same year, in a similar position, at Las Mercedes, in Teneriffe, from beneath the dead, loosened bark of an old tree. The latter of these, however, I afterwards lost.

## Genus Oxypleurus.

Mulsant, Longic. de France, 57 (1840).

After what has just been stated concerning the distinctive characters of *Blabinotus* and *Oxypleurus*, in the respective construction of their eyes, prothorax, and antennæ, it will be unnecessary to add more here than that the insect enunciated below is a most typical exponent of the latter.

3. **Oxypleurus pinicola*, n. sp.

*O.* cylindricus, rufo-brunneus, pube fulvescenti-cinerea demissa parce vestitus; capite convexo, æquali, profunde punctato; prothorace convexo, subæquali, paulo profundius punctato, utrinque in spinam brevem robustam subanguliformem mediam producto et pone hanc angustato oblique recto; elytris profunde punctatis, punctis postice minoribus.

Long. corp. lin. 6.

*Habitat* Palmam, tempore vernali A.D. 1858 exemplar unicum (mortuum) in cono quodam *Pini canariensis* desiccato in montibus supra Sanctam Crucem inveni.

The single example described above was taken (dead) by myself in the island of Palma during the spring of 1858, from out of a dried cone of a *Pinus canariensis*, high up in the Barranco above S^ta^ Cruz. It is probably therefore peculiar to the Pinals, and may be expected to occur generally (though perhaps rarely) throughout the central and western portions of the archipelago. Judging from the type of the *O. Nodieri* (from southern Europe) now in my possession, which has been kindly lent me by Mr. Pascoe, the present species is most closely akin to that insect. It is, however, a little less pubescent; its prothorax is altogether a trifle narrower, somewhat more attenuated behind (where the sides are rather straighter, though very

oblique), and with the lateral spine shorter and more anguliform; and its elytra are *almost* free from the small, punctiform, subglabrous spaces which are tolerably evident (and which have a good deal the appearance, *primâ facie*, of tubercles) in its ally.

I have no type at present of the Madeiran *O. Bewickii* to compare it with, but I feel pretty sure that the Canarian *Oxypleurus* is not absolutely conspecific with that insect; though at the same time I am tolerably certain, even from recollection, that it is quite *as* nearly related to it as it is to the *O. Nodieri*.

Genus Criocephalus.
Mulsant, Longic. de France, 63 (1840).

4. *Criocephalus rusticus.*

*Cerambyx rusticus*, Linn., Fna Suec. 492 (1746).
*Callidium rusticum*, Brullé, in Webb et Berth. (Col.) 62 (1838).
*Criocephalus rusticus*, Muls., Longic. de France, 63 (1840).
—— ——, Woll., Cat. Mad. Col. 124 (1857).

*Habitat* in intermediis Teneriffæ et Palmæ, rarissimus.

This European insect has decidedly less the appearance, at the Canaries, of having been naturalized than the *Hylotrupes bajulus*; nevertheless I am doubtful whether it can be regarded as truly indigenous. It seems to be extremely rare, and to occur at intermediate altitudes,—perhaps, however, more abundantly in the old Pinals, though in such situations I do not happen hitherto to have observed it. Indeed Palma is the only one of the seven islands in which I have myself met with it, where, at the beginning of June 1858, I obtained two or three specimens during my sojourn, in company with the Rev. R. T. Lowe, at the Banda. A Teneriffan example, however, stated to have been taken at the Agua Garcia, has been communicated by the Barão do Castello de Paiva. It is found likewise in Madeira, namely in the various pine-woods which have been planted extensively of late years, at a high elevation, on the southern and eastern slopes of the island.

The Canarian specimens have the tubercles on either side of their prothorax, and their elytral costæ, a trifle more developed than is the case in examples now before me from the south of France, and the basal rim of their pronotum is a little less thickened and more sinuated; but I cannot believe that such slight differences are indicative of more than, at the utmost, a slight geographical variety.

5. **Criocephalus pinetorum*, n. sp.

*C.* affinis *C. rustico*, sed minor, pallidior (rufo-brunneus, elytris, sed præ-

sertim antennis pedibusque pallidioribus), fronte inter oculos magis triangulariter depressa sed minus foveolata, prothorace per marginem anticum et posticum rectiore (minus sinuato), tuberculis lateralibus paucioribus, elytris apice sensim brevioribus, costis minus distinctis.

Long. corp. lin. $6\frac{1}{2}$.

*Habitat* Palmam, arbores vetustas *Pini canariensis* in locis elevatis destruens.

I believe that the unique specimen from which the above diagnosis has been compiled is truly the exponent of an additional species of *Criocephalus*, and cannot be regarded as a depauperated or ill-developed individual of the *rusticus*; nevertheless, as it is scarcely mature (having been bred from a pupa which I captured out of an old pine-stump in the island of Palma, between the plains of Los Llanos and the Great Caldeira), I think that further material should be obtained before the true characters of the insect can be fully enunciated. It would seem to be extremely abundant throughout the Pinal, in Palma, above referred to (and perhaps, therefore, throughout the Pinals generally); but as my sojourn there happened to be at the wrong season of the year for the perfect insect, namely early in June of 1858, I was able to procure only the larvæ and pupæ (all of which, except one, afterwards died, and which were excessively common in many of the rotten trunks of the *Pinus canariensis*).

If the example described from be normal for its kind, the *C. pinetorum* is smaller and paler than the *rusticus*, being of a reddish brown, with the limbs bright rufo-ferruginous; its forehead is more triangularly impressed between the eyes, but less deeply foveolated in the centre; its prothorax, on which the lateral tubercles are fewer, has its anterior and posterior margins straighter (or less sinuated); and its elytra are rather more abbreviated behind, and have their longitudinal costæ less evident.

## Genus Hesperophanes.

(Dejean) Muls., Longic. de France, 66 (1840).

### 6. *Hesperophanes senex.*

*Trichoferus senex*, Woll., Ins. Mad. 428, tab. 9. f. 3 (1854).
*Hesperophanes senex*, Woll., Cat. Mad. Col. 127 (1857).

*Habitat* Teneriffam, mihi non obvius; a Barone "Castello de Paiva" communicatus.

Although I have not myself observed this insect at the Canaries, I have no hesitation in admitting it into the fauna, inasmuch as a single mutilated example, obtained from an old (but very accurately kept) collection which was formed many years ago in Teneriffe, has

lately been communicated by the Barão do Castello de Paiva. Though much broken, it differs in no respect (that I can detect) from the ordinary specimens of Madeira, unless indeed it be that the punctation of its prothorax is perhaps a little less coarse. At Madeira it is far from uncommon in certain spots of low elevation around Funchal.

### 7. *Hesperophanes roridus.*

*Callidium* (*Hosparophanes*) *roridum*, Brullé, in Webb et Berth. (Col.) 62, pl. 1. f. 6 (1838).

*Habitat*?

Even M. Brullé's description of this insect is, I think, sufficient to warrant the conclusion that it cannot pertain to any of the other Longicorns enumerated in the present paper; and therefore I insert it (as in the case of the two *Clyti*) on his authority, as having been included in the scanty (and somewhat doubtful) material of MM. Webb and Berthelot. I need scarcely add, however, that I am unable to give any critical information respecting it—not even the island in which it was found; for it was not the custom of M. Brullé to insert a single remark on the structure, habits, or *habitat* of any of the very few species collected by MM. Webb and Berthelot, and which he undertook to "describe" for their stupendous work.

## Genus Clytus.

Fabricius, Syst. Eleu. ii. 345 (1801).

### 8. *Clytus Webbii.*

*Clytus Webbii*, Brullé, in Webb et Berth. (Col.) 63 (1838).
—— *Webbei*, Gory, Mon. des Clytus, 80 (1841).

*Habitat* Teneriffam (sec. Dom. Gory), mihi non obvius.

Considering the excessive inaccuracy of Mr. Webb, and the unmistakeable errors of which he has been convicted (founded on the most positive evidence) in transposing his specimens from Madeira and the Canaries, which he appears to have mixed up together, I feel that nothing certain can be affirmed even of the *habitat* of this insect, which may perhaps have been introduced along with foreign timber into Funchal, then taken by Mr. Webb (together with other Madeiran species) to Teneriffe, and afterwards reported by him (no doubt unintentionally) for both groups! At any rate some such explanation seems far from *improbable*; for M. Gory cites it (clearly on the authority of Mr. Webb, as is evident from the name which he proposed for it) as coming from *Madeira* (where, I will venture to say, the species does not exist), adding in a note, "Cet insecte a été

rapporté de l'île de Ténériffe par MM. Webb et Berthelot; nous en devons la communication à M. Brullé, qui est chargé de décrire les insectes rapportés par ces voyageurs." My own belief is, that it occurs neither at Madeira nor the Canaries; nevertheless, since it is quoted for them both, and is admitted by M. Brullé for the latter (of course, however, on the authority of Mr. Webb), I have no choice but to include it in this paper. M. Brullé, as usual, gives *no* information about it, not even its (supposed) island *habitat*, except that it appears to him to be nothing more than a variety of the common *C. 4-punctatus*, Fab.

9. *Clytus griseus.*

*Clytus griseus*, Brullé, in Webb et Berth. (Col.) 63 (1838).
—— ——, Gory, Mon. des Clytus, 80 (1841).

*Habitat* Teneriffam (sec. Dom. Gory), mihi non obvius.

Referring to M. Gory's Monograph of *Clytus*, we are told (p. 80), concerning this insect, that "MM. Webb et Berthelot l'ont rapporté de l'île de Ténériffe;" yet in MM. Webb and Berthelot's gigantic work (which is supposed, *inter alia*, to include a complete and descriptive fauna of the Canary Islands) all the information we gather from M. Brullé (who compiled the Coleopterous portion of it) is as follows: "*Clytus griseus*, Lap. et Gory. Ibid.,"—which (as is his custom) does not even state in what *island* the insect was taken! But when I mention that its insertion at all into the Canarian fauna seems to rest on precisely the same authority as the last species, and moreover that the European *C. griseus* is a mere variety of the *4-punctatus* (as appears to be the case equally with the *C. Webbii*!), I perhaps ought scarcely to admit it into this paper.

Genus Gracilia.

Serville, Ann. de la Soc. Ent. de France, iii. 81 (1834).

10. *Gracilia pygmæa.*

*Saperda minuta*, Fab., Mant. Ins. i. 150 (1787).
*Callidium pygmæum*, id., Ent. Syst. i. ii. 323 (1792).
—— *pusillum*, id., Ent. Syst. i. ii. 330 (1792).
*Obrium minutum*, Steph., Ill. Brit. Ent. iv. 250 (1831).
*Gracilia pygmæa*, Muls., Longic. de France, 103 (1840).

*Habitat* Fuerteventuram, Gomeram et Palmam, præsertim in vimineis circa domos, hinc inde vulgaris.

I have adopted for this common European insect the specific title by which it is usually cited; nevertheless Fabricius, according to his own admission, first described it, in 1787, under the name of *Saperda*

*minuta*—quoting it, however, subsequently, in 1792, as the *Callidium pygmæum*. It has probably been naturalized from more northern latitudes in these islands, where it occurs in precisely similar spots to those in which it occurs for the most part in Europe. It appears to be more particularly attached to the various kinds of wicker- and basket-work, within the dried sticks of which it resides, and is consequently more often to be met with in, or about, houses than elsewhere. In such positions I took it abundantly in Palma (particularly at the Souces, towards the north-east of that island, emerging from its perforations in the light open trays in which silkworms were kept), during May 1858; and I likewise found it, at the beginning of April of the following year, in the Rio Palmas of Fuerteventura. A single specimen has also been communicated by W. D. Crotch, Esq., which was captured by himself, during the spring of 1862, in Gomera.

It occurs sparingly in the Madeiran group; and I may state that, in a paper on "Additions to the Coleoptera" of those islands, published in the 'Ann. of Nat. Hist.' for December 1858, I cited it, by mistake, as the *Obrium brunneum*, Fab., which, however, is a totally different insect.

### Fam. **Lamiadæ.**

#### Genus Leprosoma.

(Dejean) Thoms., Essai d'une Classif. de la Céramb. 23 (1860).

#### 11. **Leprosoma gibbum.*

*Leprosoma asperatum*, Dej., Cat. 372 (1837).
*Lamia gibba*, Brullé, in Webb et Berth. (Col.) 62, pl. 1. f. 5 (1838).
*Leprosoma asperatum*, Thoms., Essai, 23 (1860).
—— *gibbum*, Woll., Trans. Ent. Soc. Lond. (3rd Series) i. 178 (1862).

*Habitat* Fuerteventuram et Teneriffam, truncos ramosque Euphorbiarum emortuos in montibus destruens.

This curious Longicorn, which I have fully described in my paper "on the *Euphorbia*-infesting Coleoptera of the Canary Islands," is quite peculiar to the Euphorbias, within the dead branches and stems of which it undergoes its transformations. In such situations I have taken it on the hills above S^ta^ Maria Betancuria (in the Rio Palmas) of Fuerteventura, as also in Teneriffe—particularly on the mountain-slopes beyond S^ta^ Cruz, in the direction of Laguna and Las Mercedes. But it will probably be found to be widely spread over the archipelago, if only searched for in its proper localities.

The *L. gibbum* is certainly a good deal allied to my Madeiran genus *Deucalion*, with which indeed I had at first imagined that it might perhaps be associated; nevertheless Mr. Pascoe, who has lately ex-

amined the two insects critically, assures me that he believes them to be the exponents of distinct groups.

Genus Stenidea.

Mulsant, Coleopt. de France, (Lamell.) Suppl. (1842).

In their cylindrical bodies, obscurely dappled surfaces, and laterally-spinose prothorax, the insects enumerated below have so much the *primâ facie* aspect of the *Blabinoti*, that, in a paper published last year "on the *Euphorbia*-infesting Coleoptera of the Canary Islands," I actually cited them as such. I should add, however, that I contented myself with their mere superficial contour, without even looking at all to their real structural characters, which the more recent, and more accurate, observations† of Mr. Pascoe have lately called attention to. It may be sufficient, therefore, here to state that their deflexed head and more deeply emarginate and less prominent eyes, in conjunction with the apically-acute (instead of securiform) last joint of their palpi, and their very much longer antennæ, will serve at once, apart from minor differences, to separate them from the *Blabinoti*.

12. **Stenidea annulicornis*.

*Cerambyx annulicornis*, Brullé, in Webb et Berth. (Col.) 62, pl. 1. f. 3 (1838).

*Blabinotus annulicornis*, Woll., Trans. Ent. Soc. Lond. (3rd Series) i. 179 (1862).

*Habitat* in Teneriffa et Hierro, intra caules Euphorbiarum degens.

In my paper above referred to, I remarked that "the present species and the following one are very nearly allied, both in size and external contour; nevertheless the *annulicornis* may be known from the *albida* by the much yellower hue of its (denser) pubescence, by its head being more brightly variegated, and its pronotum broadly pale down the centre—the sides being dark. Its elytra, also, have a much less tendency for the small, rounded paler spots which are generally pretty evident in that insect; whilst, on the other hand, the darker longitudinal lines are somewhat more evident, and usually less broken. Its surface, likewise, beneath the pile, is more *rufo*-piceous; and its lateral prothoracic spine, although large, is rather less powerfully developed. The *annulicornis* appears to be more abundant in the western islands than in the eastern ones, of the Canarian group. At any rate I have not observed it hitherto in Lanzarote, Fuerteventura, and Grand Canary; but have captured it

† Proc. Ent. Soc. Lond. 88 (1862).

(not uncommonly) out of the dried *Euphorbia*-stems on the mountains above S^ta^ Cruz of Teneriffe, as well as in the lower regions of El Golfo on the west of Hierro." A single example was also taken by W. D. Crotch, Esq., in Teneriffe.

In outline and general colouring the *S. annulicornis* is closely allied to the *S. Troberti* of southern Europe (for the opportunity of examining which I am indebted to Mr. Pascoe); it may, however, be immediately known from it by its much larger size and longer antennæ, by its considerably coarser sculpture and robuster pubescence, by its surface being sparingly studded all over with elongate erect hairs, and by its elytra being more perceptibly ornamented with broken, darker longitudinal lines.

### 13. **Stenidea albida.*

*Cerambyx albidus*, Brullé, in Webb et Berth. (Col.) 62. pl. 1. f. 3 (1838).

*Blabinotus albidus*, Woll., Trans. Ent. Soc. Lond. (3rd Series) i. 180 (1862).

*Habitat* in locis similibus ac præcedens, sed in Lanzarota, Fuerteventura et Teneriffa.

The whiter and less dense pubescence of the *S. albida*, in conjunction with its almost concolorous pronotum, its still more powerfully developed prothoracic spine, its less evident and more broken elytral lines, and its usually more perceptible (and paler) elytral spots, will at once suffice to separate it from the *annulicornis*. It is not uncommon beneath the dry outer bark of the various Euphorbias, under which circumstances I have taken it in Lanzarote and Fuerteventura; as also at Taganana, and on the mountains above S^ta^ Cruz, in Teneriffe.

### 14. **Stenidea pilosa.*

*Blabinotus pilosus*, Woll., Trans. Ent. Soc. Lond. (3rd Series) i. 181 (1862).

*Habitat* Lanzarotam, in Euphorbiis emortuis, rarissima.

The narrower outline of the *S. pilosa* (the elytra of which are but slightly wider than the hinder region of the prothorax), in conjunction with its much shorter and almost anguliform prothoracic spine and the comparatively broader anterior portion of its prothorax (which is much less constricted than the hinder half), and its denser suberect additional pile, will readily separate it from both of the preceding species. It would seem to be extremely rare, and confined (so far at least as has been observed hitherto) to Lanzarote,

where it was first detected by John Gray, Esq., during January 1858, near Haria, in the north of that island. Subsequently I myself captured two examples of it in the same district, from beneath the dead, loosened bark of old *Euphorbia*-stems.

15. **Stenidea Hesperus*, n. sp.

*S.* angusto-cylindrica, pilis demissis cinereis densissime tecta et longioribus suberectis in prothorace necnon elytrorum apicem versus parcissime obsita; prothorace ad latera spina media parva armato, antice et postice subæqualiter constricto; elytris lineis fractis nigrescentibus sat distinctis longitudinaliter ornatis, ad apicem singulatim rotundatis; antennis longissimis.

Long. corp. lin. $5\frac{1}{2}$.

*Habitat* ins. Hierro; specimen ex arbuscula quadam *Rumicis Lunariæ* in inferiore vix supra mare crescente, die 11. Feb. A.D. 1858, collegi.

At first sight the present *Stenidea* a good deal resembles a minute specimen of the *S. pilosa*; nevertheless, apart from its much smaller size, it may readily be known from that species by the more defined and less anguliform (though small) spine of its rather less basally-constricted, concolorous prothorax; by its more cinereous (or less yellowish-white) pubescence, and its freedom (except at the apex of the elytra and very sparingly on the prothorax) from additional erect hairs; by its elytra being more rounded-off (separately) at their tip, and more conspicuously ornamented with broken longitudinal darker lines; and by its antennæ being considerably longer. The specimen from which the diagnosis has been compiled is unique, and was beaten, on the 11th of February 1858, from off a bush of the *Rumex Lunaria*, in the island of Hierro, at a low elevation (scarcely above the sea-level), on the ascent from Port Hierro to Valverde.

Genus Agapanthia.

Serville, Ann. de la Soc. Ent. de France, iv. 35 (1835).

16. **Agapanthia Cardui*.

*Cerambyx Cardui*, Linn., Syst. Nat. (ed. 12.) i. 632 (1767).
*Saperda suturalis*, Fab., Syst. Eleu. ii. 326 (1801).
*Agapanthia suturalis*, Muls., Longic. de France, 178 (1840).

*Habitat* in Canaria, Teneriffa et Palma, præsertim ad flores Carduorum, tempore vernali et æstivo haud infrequens.

The *A. Cardui* of southern Europe and northern Africa is widely spread over the Canarian archipelago, where it occurs, at intermediate elevations, during the spring and summer, principally on the flowers of thistles. I have taken it throughout the region of El Monte in Grand Canary, at Las Mercedes in Teneriffe, and in Palma.

# JOURNAL OF ENTOMOLOGY.

No. IX.—November, 1863.

## X.—*On some new Species of Neuropterous Insects from Australia and New Zealand, belonging to the Family* Hemerobiidæ. By R. M'Lachlan, F.L.S.

In this paper I have attempted descriptions of some of the undescribed Hemerobiidæ received within the last few years from Australia and New Zealand. Till now no species of this family have been noticed from the latter colony; and the number of described Australian species is not great: nevertheless it is probable that these quarters are rich in these insects, those sent up to the present time affording no good evidence on this point, they being doubtless mere casual captures, and not the result of any systematic search.

The following is a list of those species hitherto described as coming from Australia and Tasmania.

### Genus Nymphes, Leach.

*N. myrmeleonides*, Leach, a noble insect, of which the British Museum possesses a fine series.

### Genus Osmylus, Latreille.

*O. strigatus*, Burm.

*O. extraneus*, Walker, B.M.Cat.—No locality given. A second specimen has since been received from Australia. This is placed by Mr. Walker in the genus *Nymphes*; but to me it has more the appearance of an *Osmylus*, and seems to possess ocelli, which character will preclude it being placed in *Nymphes*.

*O. sejunctus*, Walker, B.M.Cat.—Likewise placed in *Nymphes*. I can discover no ocelli; but it has, as has also the last species, the moniliform antennæ of *Osmylus*.

*O. tenuis*, Walker, B.M.Cat.

*O. longipennis*, Walker, B.M.Cat.

It is probable that eventually these insects will be separated from *Osmylus*, and placed in two or more distinct genera.

Genus Chrysopa, Leach.

*C. Ramburi*, Schneider.—I am doubtful as to Mr. Walker's type of this species in the British Museum Collection being the same. Schneider describes the palpi as "læte fulvæ;" in Mr. Walker's species they are distinctly annulated with black.

*C. signata*, Schneider.—Mr. Walker's type of this can hardly be the same. Schneider describes and figures the prothorax as immaculate; the specimens in the British Museum have a large and very distinct <-shaped black mark on each side of the prothorax, and also a black spot on each side of the mesothorax in front.

*C. innotata*, Walker, B.M.Cat.

*C. insignis*, Walker, B.M.Cat.

*C. lutea*, Walker, B.M.Cat.

Genus Psychopsis, Newman.

*P. mimica*, Newman.

*P. cœlivaga*, Walker, B.M.Cat. (*Hemerobius*).

Genus Micromus, Rambur.

*M. australis*, Walker, B.M.Cat.—Placed in *Hemerobius*; but there is no recurrent vein at the base of the costal space.

Genus Hemerobius, Linnæus.

*H. Tasmaniæ*, Walker, Trans. Ent. Soc.—I have not yet seen the type of this species.

The genera *Nymphes* and *Psychopsis* are apparently confined to Australia.

Genus Osmylus, Latreille.

*O.? incisus.* (Pl. VI. fig. 1.)

*O.* luridus; antennis flavis, vix pilosis; abdomine fusco; pedibus flavis, femoribus tibiisque nigro punctatis, tarsis ad apicem nigris: alis anticis vix falcatis, ad basim angustis, subhyalinis, griseo-fusco irroratis et nebulosis, maculis tribus magnis informibus ad marginem dorsalem maculaque semicirculari ad apicem fuscis; costa fusco punctata; venis longitudinalibus nonnullis flavis, reliquis fuscis albo punctatis; posticis pallido-signatis.

Long. corp. 8 lin., exp. alæ 26 lin.

*Hab.* New Zealand (Otago and Auckland) (*Mr. Oxley*). In my own Collection and in that of the British Museum.

Lurid, pubescent; antennæ yellow, slightly hairy; eyes lurid; abdomen fuscous; legs yellow; thighs and tibiæ with a black spot at the knees, and another in the middle; apical joints of the tarsi black: anterior wings narrow at the base, apical margin excised, subhyaline, sometimes tinged with brownish, clouded and irrorated with greyish fuscous;

three large irregularly shaped blotches on the inner margin, and a somewhat lunate one in the apex, fuscous; costa spotted with fuscous; subcostal vein and one in the middle of the wing yellow, all the others fuscous, dotted with white; posterior wings marked in a similar manner, but less distinctly, and the apical margin is very slightly excised.

*O.? pallidus.* (Pl. VI. fig. 2.)

*O.* rufo-brunneus; antennis dilute luteis; oculis nigris; palpis fuscis; thorace utrinque nigro-fusco; pedibus dilute luteis, genibus tarsisque fuscescentibus: alis anticis marginibus apicalibus oblique truncatis vix excisis, hyalinis, nonnihil brunneis, punctis paucis fuscis, marginibus apicalibus dorsalibusque fusco punctatis, venis fusco punctatis; posticis haud punctatis.

Long. corp. 5 lin., exp. alæ 17 lin.

*Hab.* Australia. In the Collection of the British Museum.

Reddish brown, slightly hairy; antennæ pale yellow; eyes black; palpi fuscous; thorax blackish fuscous at the sides; legs pale yellow, knees and tarsi fuscescent: anterior wings broader than in the last species, apical margin obliquely truncated, very slightly excised, hyaline, with a brownish tinge most manifest at the pterostigma, and along the dorsal margin a few scattered fuscous dots, and the apical and dorsal margins are spotted with fuscous, veins regularly pointed with fuscous; posterior wings with no black dots, otherwise similar to the anterior.

These two pretty species differ from the European *O. Chrysops* in the much finer reticulation of the wings, and the shape of these latter; but the differences are so slight that I do not think it would be right to separate them generically at present.

Chrysopa, Leach.

*C. opposita.* (Pl. VI. fig. 6.)

*C.* flavo-viridis; antennis pallidis, ad apicem brunneis; prothorace brevi, macula utrinque rufo-ochracea, mesothorace antice nota utrinque brunnea; pedibus pallide viridi-albis, tarsis ad apicem brunneis: alis anticis brevibus, ad apicem vix rotundis, hyalinis, areolis paucis magnis, pterostigmate brunneo, venis longitudinalibus dilute viridibus, venulis transversalibus costalibus nonnullis basim et apicem versus et furculis marginalibus nigris, reliquis griseo nebulosis; posticis hyalinis pterostigmate viridescente, venulis transversalibus costalibus nigris.

Long. corp. 3 lin., exp. alæ 10 lin.

*Hab.* Australia (Moreton Bay) (*Mr. Diggles*). In the Collection of the British Museum.

Yellowish green; antennæ pale whitish ochreous, brown towards the tips; eyes in dead specimens black; prothorax short, with a reddish ochreous spot on each side, mesothorax with a brown mark on each side in front; legs very pale greenish white, apical joint of the tarsi

brownish: anterior wings short, somewhat rounded at the apex, hyaline, areolets few and large, pterostigma brown, longitudinal veins pale green, all the transverse costal veins, a few towards the base and apex, and the marginal forks internally (and in part externally) black, the others clouded with grey; posterior wings with a greenish pterostigma, only the transverse costal veins black.

A neat and characteristic species of this gigantic genus, which seems to spread itself, with scarcely any modifications, over the whole world*.

### Psychopsis, Newman.

*P. insolens.* (Pl. VI. fig. 3.)

*P.* pallide ochracea, pilosissima; antennis pedibusque albido-ochraceis; oculis nigris: alis anticis subhyalinis fulvo pilosis, maculis numerosis

* In the 'Annales de la Société Entomologique de France,' sér. 4, tom. ii. trimestre 3 (1862), is a memoir by M. Girard, in which are described two new species of *Chrysopa* from New Caledonia, under the names of *Hemerobius chloromelus* and *H. stigma* of Montrouzier. The retention of the generic term *Hemerobius* for these insects is opposed to the ideas of almost all modern writers on the subject, excepting M. Rambur. This name is now usually only applied to those small insects to which Rambur applied the name *Mucropalpus*, of which *H. Humuli* may be taken as the type.

This memoir is full of interesting details on the venation of the wings, with the opinions of the various authors who have made these insects their study; but it seems strange that no mention whatever is made of the most comprehensive monograph of the genus yet published, viz. 'Schneider's Symbolæ ad Monographiam generis Chrysopæ, Leach,' 1851, in which the neuration of the wings has received the author's especial attention. In M. Girard's arrangement of the nervures the subcostal nervure is described as double, and the space between the two branches is termed the "*cellule médiastine.*" These two branches form the *subcosta* and *radius* of Schneider, and are well indicated on plates 2 & 5 of his monograph.

But the character on which M. Girard places most stress is the small transverse nervule near the base of the wing connecting the two branches; this he calls the "*nervule intercurrente.*" The position of this nervule is considered as furnishing a specific character, and its absence in some species as entitling them to form a separate genus, in which he would place *H. stigma*, Montrouzier. The presence of this intercurrent nervule is indicated in Schneider's scheme of the neuration of *Chrysopa*, on plate 2; and at page 42, he says, "In area intra radium et subcostam angustissima prope ad alæ basin *una*, et in pterostigmate plures venæ transversariæ nomine *venularum radialium* a me significantur." However, it is clearly absent in his genus *Apochrysa*, and most probably also in his *Chrysopa longicollis*, which, he remarks, is intermediate between *Chrysopa* and *Apochrysa*. To this species *H. stigma* is evidently nearly related; and in the same genus will come *C. lutea*, Walker, *C. aurifera*, Walker, and *H. Marionella*, Guérin, none of which possess this intercurrent nervule. All of these are elegant species, readily distinguished at first sight by the great length of the antennæ.

griseis et griseo-ochraceis, punctis duobus nigris, uno ante apicem altero ad angulum analem; posticis albido-hyalinis, macula rotunda ad apicem brunnea.

Long. corp. 4–5 lin., exp. alæ 12–15 lin.

*Hab.* Australia (Moreton Bay) (*Mr. Diggles*). In the Collection of the British Museum.

Pale ochreous, very hairy; antennæ and legs pale whitish ochreous; eyes black; apex of abdomen clothed with whitish hairs: anterior wings subhyaline, clothed with fawn-coloured hairs, thickly maculated with grey and greyish ochreous, margins regularly spotted with grey, a black dot near the apex, and another at the anal angle; posterior wings whitish hyaline, with ochreous hairs, a large round brown spot near the apex.

The genus *Psychopsis* was constructed by Mr. Newman for the reception of a singular insect belonging to this family, remarkable for its broad wings and greatly dilated costal area. This species (*P. mimica*, Newman) is described in the 'Entomologist,' p. 415, and figured on the title-page of that journal. A second species is described by Mr. Walker in the 'Catalogue of the Neuropterous Insects in the Collection of the British Museum,' part 2, p. 279, under the name of *Hemerobius cœlivagus*; and a third species, described above, has been lately received. All three inhabit Australia.

### Drepanepteryx, Leach.

*D. binocula*, Newman.

*D. instabilis.* (Pl. VI. fig. 4.)

*D.* rufo-fusca; antennis pallide ochraceis, brunneo annulatis; prothorace utrinque nigro; pedibus pallide ochraceis: alis anticis sub-apicibus profunde excisis, subhyalinis, vix griseis, griseo-brunneo irroratis et nebulosis, sectoribus sex, venulis gradatis in serie interna decem, externa quatuordecim nigricante marginatis, venis longitudinalibus griseo-brunneo punctatis; posticis albo-hyalinis, griseo marginatis, venis nonnullis nigricantibus.

Long. corp. 3½ lin., exp. alæ 9 lin.

*Hab.* New Zealand (Otago) (*Mr. Oxley*). In my own Collection.

Var. Alis anticis seriebus ambabus venularum gradatarum nigricante marginatis, inter eas macula magna costali subhyalina.

Reddish fuscous; antennæ pale greyish ochreous, annulated with brown; prothorax black at the sides; legs very pale greyish ochreous: anterior wings deeply excised below the apex, greyish subhyaline, clouded and irrorated with greyish brown, forming transverse streaks on the costal margin, six sectors radii, 10 gradate veinlets in the inner series, 14 in the outer, the latter deeply margined with blackish, longitudinal veins dotted with greyish brown; posterior wings whitish hyaline, interruptedly margined with grey, some of the veins blackish.

A variety has both series of gradate veinlets in the anterior wings margined with blackish; between them on the costa is a large subhyaline space without markings, and there is also a somewhat conspicuous black spot near the base.

I have no doubt that the two insects described above are varieties of one variable species. This and the next are allied to *D. binocula*, Newman, from Australia, which also seems to vary considerably. *Hemerobius flavicornis*, Walker, and *H. hamatus*, Walker, from America, which much resemble these in the shape of the wings, have no recurrent vein at the base of the costal area, and have been placed by Dr. Hagen in the genus *Micromus* (Neurop. N. America, p. 198).

*D. humilis.* (Pl. VI. fig. 5.)

*D.* ochracea, sparse pilosa; antennis pallide ochraceis; prothorace et mesothorace utrinque fuscescentibus; pedibus pallide ochraceis, tarsis fuscescentibus: alis anticis ad marginem apicalem vix excisis, subhyalinis, grisco-ochraceo nebulosis, punctis raris fuscis, marginibus apicalibus dorsalibusque fuscis albo punctatis, venis longitudinalibus fusco punctatis, venulis gradatis in serie interna novem, externa tredecim; posticis hyalinis, pterostigmate ochraceo.

Long. corp. 3 lin., exp. alæ 7 lin.

*Hab.* Australia (Moreton Bay) (*Mr. Diggles*); New Zealand (Otago) (*Mr. Oxley*), (Auckland) (*Colonel Bolton*). In my own Collection, and in that of the British Museum.

Ochreous, slightly pilose; antennæ pale ochreous; eyes lurid; pro- and meso-thorax somewhat fuscous at the sides; legs pale ochreous, tarsi fuscescent: anterior wings slightly excised at the apical margin, subhyaline clouded with greyish ochreous, and with a few scattered black dots most numerous along the costal margin; apical and inner margins narrowly fuscous, spotted with white; longitudinal veins with fuscous points, 9 veinlets in the inner gradate series, some of which are fuscous, 13 in the outer; posterior wings hyaline, pterostigma ochreous.

In the New Zealand examples the posterior wings have a fuscous dash at the anal angle, but they do not sufficiently differ from the Australian to warrant their separation specifically.

## EXPLANATION OF PLATE VI.

Fig. 1. *Osmylus*? *incisus.*
„ 2. —— ? *pallidus.*
„ 3. *Psychopsis insolens.*
„ 4. *Drepanepteryx instabilis.*
Fig. 4*. *Drepanepteryx instabilis*, var.
„ 5. —— *humilis.*
„ 6. *Chrysopa opposita.*

## XI.—*Description of a new Species of Longicorn Beetle.*

By J. O. Westwood, M.A., F.L.S., &c.

In the present state of entomological science, the publication of technical descriptions of isolated species of insects has become in the highest degree inconvenient, not only to the student, whose time is greatly absorbed by the necessity to hunt out such descriptions in the many channels of communication now open for their reception, but also to the authors thereof, as, in many instances, such descriptions are overlooked, and become dead letters in the science. No greater benefit, therefore, could be afforded to both these classes than were the editors of scientific periodicals and the councils of the different publishing societies to refuse publication to such descriptions. At the same time it is equally evident that the descriptions of isolated species may be made the vehicles of the most important scientific researches: look, for instance, at the memoirs of Léon Dufour, in which so many detached species are made the objects of the most valuable anatomical and physiological observations; or take as an example many of Mr. Kirby's descriptions of isolated species, each of which was made the centre of inquiries as to the natural relations and systematic position of the group to which the species is referable.

The great facilities, indeed, afforded at the present day to the authors of such descriptions for their publication in the many periodicals devoted either to zoology in general or to entomology in particular have become the bane of the science. The editors of these publications in too many instances are only too glad to accept any kind of descriptions to fill their pages, and hence they too frequently omit to exercise the power which their position invests them with, but of which science at the same time imposes upon them the stern use. It is, therefore, with much pleasure that I have learned that the editor of this Journal has come to the determination of refusing admission to descriptions unaccompanied by critical remarks as to the relationship of the genera and species intended for publication; and I trust that such a decision, together with the strong opinion on the subject which has been expressed in so many quarters, may have the effect of putting a stop to that torrent of ill-digested, ill-described species which it is as difficult in many instances to determine as to be satisfied with even when determined.

England indeed has, with a few bright exceptions, been peculiarly unfortunate in her entomological descriptive works. Marsham's 'Coleoptera Britannica' and Haworth's 'Lepidoptera Britannica'

were great failures, chiefly owing to the fact that their authors paid too little attention to minute structural characters; whilst the great work of Stephens could hardly be expected to be more fortunate when we bear in mind the peculiar nature of the gigantic task which the author had imposed upon himself. On the other hand, the 'Monographia Apum Angliæ' will be a text-book so long as entomological literature exists,—first, because the author had concentrated his energies on a group of moderate extent; and secondly, because his peculiar *modus operandi* had led him to seize and dwell upon minute structural characters as the foundation of his system. How far the literature of our own day well deserves the censure or the praise which we have learned to allot to these different works will perhaps require another half century to determine, although the voice of the critic even now demands its absolute extermination. To avoid such a result, it behoves every one who will attempt the description of species to do so with a view to benefit science, the advancement of which must inevitably be retarded by the continued heaping up of crude technicalities which can only be likened to so much rubbish thrown upon a highway, of no use till the hammer of the critical road-maker has broken it to pieces and rendered it available for scientific use, or an encumbrance to be thrown aside for its worthlessness.

These observations may seem ill-placed as the preface to the description of a single new species of Longicorn Beetle; but, as stated above, the description of an isolated species may be so treated as materially to serve the cause of science by the investigation of the affinities of the group to which it belongs; and it is in this point of view that I venture to offer such a description to the subscribers this work.

In every group of natural objects, especially if of large extent, there are some individuals which are more especially typical or characteristic of the group; and in a natural classification such individuals find their place at the greatest distance from the members of neighbouring allied groups. The type species of a family must always be looked for, therefore, if the classification be natural, in the centre of the group, whilst the species which, from their greater similarity to the neighbouring tribes, are most aberrant from the family type, are to be found on its outskirts.

In the classification of the Longicorn Coleoptera in the various works of Latreille we find the genus *Spondylis* placed at the head of the Prionidæ, evidently from its relationship to the genera *Parandra* and *Passandra*. Serville (Ann. Soc. Ent. France, i. p. 121) indeed adopts the same position, forming, however, *Spondylis* (with *Can-*

*tharocnemis*) into a subtribe, but with a remark that they "ne me paraissent pas bien évidemment être à leur véritable place."

During the thirty years which have elapsed since the publication of Serville's classification, other new genera have been established, more or less nearly allied to *Spondylis*, namely, *Hypocephalus*, *Torneutes* (Reiche, Trans. Ent. Lond. 1837, p. 9), *Erichsonia* (Westw. ibid. v. p. 210), *Thaumasus* (Reiche, Ann. Soc. Ent. France, 1853, p. 419), *Scaphinus* (Leconte, Journ. Acad. Nat. Sci. Philadelphia, xiii. p. 100), *Anoploderma* (Guérin, Revue Zool. 1840, p. 278), *Sypilus* (Guérin, ibid. p. 276), and *Mysteria* (Thomson, Essai d'une Classe des Cérambycides, p. 270). The knowledge of these genera, which comprise some of the most remarkable forms amongst Coleopterous insects, has appeared to necessitate a considerable modification in respect to the position of *Spondylis* as the type of a group in which they seem naturally to find a place, and amongst which, notwithstanding all the arguments of Mr. Thomson (*op. cit.* p. 262), I think *Hypocephalus* ought to be ranged. We accordingly find that Mr. J. L. Leconte, in his 'Attempt to classify the Longicorn Coleoptera of North America,' has removed the *Spondylitæ* from the Prionidæ, and placed them as one of the three subfamilies of a group composed of the *Lepturitæ*, *Cerambycidæ*, and *Spondylitæ*, conjointly equivalent in value to each of the *Prionitæ* and *Lamiitæ*, making *Asemum* and *Criocephalus* the connecting links between *Callidium* and *Spondylis*, whilst Mr. Thomson, in the work above alluded to, has cut up the *Spondylitæ* into five minor groups,—1. *Spondylitæ veræ*, 2. *Torneutitæ*, 3. *Erichsonitæ*, 4. *Cantharocnemitæ*, and 5. *Anoplodermitæ*, considering the margination of the sides of the prothorax as of primary importance (see pp. xv. and 129). The existence of this character, however, which occurs so generally amongst the Prionidæ alone, in *Erichsonia*, *Sypilus*, *Cantharocnemis*, and *Anoploderma* is, in my opinion, more confirmatory of the relation of these insects with the Prionidæ than with the Cerambycidæ, to which may be added the fact that the want of lobation in the third joint of the tarsi, which is so striking a character in *Anoploderma*, *Sypilus*, and the new genus described in this paper, exactly accords with its condition in *Acanthinodera Cumingii*, whilst the dilated and dentated anterior tibiæ of *Cantharocnemis* are found also in the *Prionus pilosicollis*, Hope, from Australasia.

It therefore cannot, I think, be doubted that the relationship of these insects is as strong towards the typical Prionidæ as it is to the Cerambycidæ; whether, indeed, their general aberration from the Longicorn type will not sanction their location at the borders of the

great group, rather than in the position assigned to them by Leconte and Thomson, will depend upon a general arrangement of the Pseudotetramerous insects, and must doubtless be influenced by the characters of the preparatory state of the different groups, especially such as form the connecting links between the different families.

### Migdolus*, n. g.

Genus novum, *Sypilo* proximum, differt clypeo transverso, mandibulis intus 1-dentatis, et antennis subbrevibus.

*Corpus* oblongum, subparallelum, subcylindricum. *Caput* subdeclive, mediocre; *clypeus* transversus, brevis, fere recte truncatus. *Labrum* transversum, ciliatum. *Mandibulæ* deflexæ, falciformes, apice acuto, intus prope medium dente parvo conico armatæ. *Maxillæ* parvæ, ore clauso omnino obtectæ, transverse incidentes. *Palpi maxillares* sublongi, 4-articulati, simplices, articulis longitudine fere æqualibus, ultimo articulo truncato. *Mentum* breve, transversum, angulis lateralibus rotundatis. *Labium* haud porrectum, mento absconditum. *Palpi labiales* fere longitudine maxillaribus æquales, graciles, articulo 3tio reliquis multo breviore elongato-ovali. *Antennæ* dimidio corporis vix longiores, 11-articulatæ, articulo 2ndo minuto, 3tio vix 4tum longitudine excedente, hoc et reliquis ad angulum internum paulo acute productis.

*Prothorax* capite major et latior, lateribus rotundatis marginatis convexus. *Prosternum* parum elevatum, postice truncatum, ultra coxas anticas haud productum. *Mesosternum* simplex, angustum, impressione media in parte antica notatum. *Pedes* mediocres, tibiis omnibus ad apicem externum in spinam productis, apice truncato denticulato; *tarsi* articulis tribus basalibus subtus longe setosis, 2ndo et 3tio triangularibus haud bilobatis, 4to distincto nodiformi. *Elytra* oblonga, parallela, apice rotundata.

Species unica Brasiliensis.

### *Migdolus Fryanus*, n. sp.

*M.* niger, nitidus, piceo parum tinctus punctatissimus; capite in medio inter oculos subimpresso; pronoto punctis 4 discoidalibus; elytris punctato-granulosis, punctis rivulosis; corpore infra nitido, punctato, luteo setoso, lateribus metasterni valde setosis.

Long. corp. lin. 14, cap. lin. $1\frac{2}{3}$, proth. lin. 4, elytr. lin. $8\frac{1}{2}$.

*Habitat* in Brasilia prope Rio Janeiro (*D. Fry*).

Ex individuo unico (fœmineo?) descriptum.

Plate VII. fig. 1. Migdolus Fryanus, of the natural size.

1 *a*. The clypeus and mandibles; 1 *b*. The mentum and palpi *in situ*; 1 *c*. Prosternum; 1 *d*. Same, with the anterior coxa seen sideways; 1 *e*. Mesosternum impressed in front; 1 *f*. Apex of tibia and tarsus; 1 *g*. Antenna.

* Migdol, locus prope terminos Egypti ad mare rubrum.

In illustration of this new genus, I have thought it would be interesting to add figures of three of the allied genera above commented upon, of which no satisfactory representations have hitherto appeared. Figures of *Torneutes* and *Erichsonia* will be found in the 'Transactions of the Entomological Society' above referred to; of *Thaumasus*, in the French 'Annales;' of *Hypocephalus*, in my 'Arcana Entomologica,'—*Scaphinus* and *Mysteria* being still unrepresented.

Plate VII. fig. 2. Sypilus d'Orbignii, Guérin, Rev. Zool. p. 276; Icon. Règne An., texte; Blanchard in Voy. d'Orbigny, Crust. et Ins. p. 206, pl. 20. f. 1 (mala).

*Habitat* in Patagonia. In Mus. Hopeiano Oxoniæ.

2 *a*. Head, seen in front; 2 *b*. Palpi; 2 *c*. Two of the middle joints of the antennæ; 2 *d*. Anterior tarsus, showing the very narrow, lobeless state of the three basal joints.

Plate VII. fig. 3. Anoploderma bicolor, Guérin, Rev. Zool. 1840, p. 278; Blanchard, in Voyage d'Orbigny, Crust. et Ins., texte, p. 206, pl. 20. f. 2 (mala).

*Habitat* the Andes. In Mus. Guérin. Ex individuo typico delineatum.

3 *a*. Head, seen in front; 3 *b*. Tarsus.

Plate VII. fig. 4. Cantharocnemis spondyloides, Serville, Ann. Soc. Ent. France, i. p. 132.

4 *a*. The clypeus, labrum, and mandibles of the male; 4 *b*. Mandible of female; 4 *c*. Labrum and palpus, with maxillary palpus; 4 *d*. Two of the middle joints of the antennæ.

*Habitat* in Senegallia. In Mus. Hopeiano Oxoniæ.

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## XII.—*List of the* Colydiidæ *collected in the Indian Islands by* Alfred R. Wallace, Esq., *and Descriptions of new Species.* By Francis P. Pascoe, F.L.S., &c.

With the exception of a few species described by me in the previous Numbers of this work, the whole of the Colydians collected by Mr. Wallace, and enumerated in this paper, are entirely new to science. They are fifty in number, belonging to twenty-four genera, of which eight are now for the first time characterized. Of the older genera, *Bothrideres* is universal, and *Cerylon* scarcely less so, except that it has not yet been detected in Australia; besides these, the only genus represented in Europe is *Colobicus*. Of the Asiatic, or rather of the Indian genera (for we scarcely know anything of this family beyond the two peninsulas), we find exponents of six in this collection, viz. *Phormesa*, *Machlotes*, *Dastarcus*, *Petalophora*, *Gempylodes*, and *Trachypholis*, while the only known Indian genus not found in it is

*Tarphiosoma*. If we except *Bothrideres*, *Penthelispa*, and *Phormesa* (the two former almost universally distributed), we have no genus common to the Indian islands and to Australia. This is the more remarkable, as we are now acquainted with eleven genera from that division of the world, all very distinct, and some of them rich in species. It is perhaps still more remarkable that four of the Indian genera, viz. *Distaphyla*, *Minthea*, *Nematidium*, and *Ocholissa*, have representatives in Tropical America, and nowhere else.

With regard to the distribution of the Colydiidæ in the Indian Islands there is nothing, so far as this collection is concerned, to call for any particular remark. Nine genera were found in New Guinea, three of which only are peculiar, viz. *Bupala*, *Caprodes*, and *Eba*. Few of the species appear to have been met with in more than one island. The exceptions were *Ocholissa humeralis*, which was found at Saylee (New Guinea), in Morty, Mysol, and Batchian; *Dastarcus confinis* at Dorey, Macassar, and Aru; *Chorites oblongus* at Macassar, Ceram, and Batchian; *Minthea simillima* at Saylee, Ceram, and Macassar; *Hyberis araneiformis* at Sarawak and Singapore; *Phormesa heros* at Dorey and Morty; *Nematidium posticum* at Sarawak and Amboyna; and *Dastarcus vetustus* at Ceram and Batchian. The little island of Mysol furnished eight species, only one of them, *Ocholissa humeralis*, having being detected elsewhere. It must be observed, however, that Mr. Wallace did not trouble himself with these "small game," except when he had nothing else to do; consequently many of the islands, such as Bouru, Gilolo, Aru, Key, Waigiou, and others, are not represented at all, or only by a single specimen. In the following table I have adhered to the five subfamilies into which Erichson has divided this family:—

SYNCHITINÆ.

Antennæ clavate.
  Prothorax entire anteriorly.
    Antennæ eleven-jointed.
      Prothorax and elytra not carinate.
        Tibiæ fusiform ..... *Caprodes*, n. g.
        Tibiæ linear or subtrigonate.
          Prothorax dilated at the sides ..... *Colobicus*, Latr.
          Prothorax not dilated ..... *Cebia*, n. g.
      Prothorax and elytra carinate.
        With antennary grooves ..... *Phormesa*, Pasc.
        Without antennary grooves ..... *Xuthia*, n. g.
    Antennæ ten-jointed ..... *Bupala*, n. g.
  Prothorax with two projecting lobes anteriorly .... *Distaphyla*, Pasc.
Antennæ not clavate ..... *Eba*, n. g.

COLYDIINÆ.

Antennæ free at the base ..... *Nematidium*, Er.
Antennæ hidden at the base.
  Antennæ clavate.
    Prothorax and elytra smooth ..... *Ocholissa*, Pasc.
    Prothorax and elytra carinate ..... *Ithris*, n. g.
  Antennæ not clavate..... *Gempylodes*, n. g.

BOTHRIDERINÆ.

Basal joint of the tarsi elongate.
  Club of the antennæ transverse ..... *Petalophora*, Westw.
  Club of the antennæ ovate or round ..... *Metopiestes*, Pasc.
Basal joint of the tarsi short.
  Prothorax with a deep transverse cleft posteriorly *Machlotes*, Pasc.
  Prothorax not cleft transversely.
    Posterior coxæ widely remote.
      Prothorax with a central impression ..... *Bothrideres*, Er.
      Prothorax without a central impression .... *Dastarcus*, Walk.
    Posterior coxæ moderately remote.
      Body ovate.
        Tibiæ sublinear.
          Interfemoral process broadly triangular. *Trachypholis*, Er.
          Interfemoral process truncate ..... *Chorites*, Pasc.
        Tibiæ fusiform.
          Sides of the prothorax nearly entire .. *Atyscus*, n. g.
          Sides of the prothorax denticulate .... *Hyberis*, Pasc.
      Body cylindrical..... *Minthea*, Pasc.

PYCNOMERINÆ.

Antennæ eleven-jointed ..... *Penthelispa*, Pasc.

CERYLONINÆ.

Antennæ ten-jointed ..... *Cerylon*, Latr.

*Colobicus parilis.*

Pascoe, huj. op. i. p. 102.—Batchian.

Of the five species of this genus now in my collection, this and *Colobicus conformis* agree with the European *Colobicus emarginatus* in having the third antennal joint as long or longer than the three succeeding joints together, while in the other two species* it scarcely

* One of these species I owe to the kindness of Dr. Schaum. The following is its diagnosis and principal characters :—

*Colobicus rugosulus.*

*C.* oblongus, rugosus, fuscus, opacus, ferrugineo anguste marginatus; elytris confertim granulatis.
*Hab.* Ceylon.

exceeds more than one of them. They are all alike in habit (except that *Colobicus limbatus* is proportionally broader), and have the prothorax and elytra more or less bordered with ferruginous.

*Colobicus conformis.*

*C.* oblongus, fuscus; capite angusto, antice rotundato; prothorace confertim punctato.

*Hab.* Lombok.

Oblong, dark brown, the prothorax broadly margined with ferruginous, the elytra with a much narrower margin; head rather narrow, rounded anteriorly, covered with whitish setose scales, the lip very short; prothorax coarsely punctured, the punctures more or less confluent, with scattered setose scales, the sides not fringed with setæ; elytra punctate-striate, the punctures with whitish setæ; legs and antennæ ferruginous; body beneath chestnut-brown, without setæ. Length $1\frac{1}{2}$ line.

This differs from *Colobicus parilis* in the closely punctured prothorax, so closely indeed as to give it a granular appearance, while in that species the punctures are, as it were, ocellated or ringed, caused apparently by a kind of protuberance at the base of each puncture. In both species the head is narrower and more elongate than in *Colobicus emarginatus*.

*Colobicus limbatus.*

*C.* rugosus, brunneus, ferrugineo late marginatus; elytris seriato-granulatis, interspatiis nitidis.

*Hab.* Sarawak.

Reddish brown, with a broad ferruginous border fringed with fine setæ to the prothorax and elytra, and covered with coarse granulations, which are most crowded on the head and prothorax, but are arranged in regular lines on the elytra, the intervals nitid, each granulation tipped with a semierect black seta; eyes with squamose setæ; head short, transverse, entire anteriorly, with a moderately long lip; legs and antennæ ferruginous, third joint of the latter not longer than the second, and much shorter than the two following joints together; body beneath dark ferruginous, with scattered greyish setæ. Length $1\frac{1}{3}$ line.

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Oblong, dark brown, opake, with a very narrow ferruginous border fringed with strong setæ to the prothorax and elytra, and covered with coarse, crowded granulations, which are arranged on the elytra in irregular rows; head moderately transverse, slightly emarginate anteriorly, with a short lip; body beneath, legs, and antennæ dull ferruginous. Length 2 lines.

CEBIA.

*Caput* receptum, subquadratum, sulcis antennariis brevibus. *Antennæ* basi tectæ, 11-articulatæ, clava biarticulata. *Prothorax* transversus, antice sinuatus, lateribus serrulatis haud dilatatis. *Elytra* convexa, parallela, haud marginata. *Tibiæ* sublineares, breviter calcaratæ; *tarsis* brevibus. *Corpus* subangustatum, convexum.

This genus has very nearly the characters of *Colobicus*, but it is a narrower and more convex form, and differs essentially in the margins of the prothorax and elytra not being dilated.

*Cebia rugosa.* (Pl. VIII. fig. 6.)

*C.* fusca; corpore infra, antennis, labro pedibusque ferrugineis.
*Hab.* Mysol.

Dark brown, with a few whitish scattered setæ; head sparingly punctured, its anterior border and tip ferruginous; antennæ ferruginous, with the two basal joints incrassate, the third nearly as long as the following three joints together, the last two joints forming a loose rounded club; prothorax very coarsely and closely punctured, the sides serrulate and not dilated; elytra convex, striate-punctate, the punctures large and confluent, the interstices with a smaller line of punctures, which are not confluent except in a slight degree with those in the striæ; body beneath ferruginous, rather sparsely punctured; legs ferruginous; tibiæ sublinear, shortly spurred; tarsi short. Length $1\frac{1}{2}$ line.

BUPALA.

*Caput* breve, ab oculis rotundatum. *Antennæ* basi tectæ, 10-articulatæ, clava articulo unico rotundato. *Prothorax* quadratus, haud marginatus. *Elytra* parallela. *Tibiæ* anticæ et intermediæ subtrigonatæ, posticæ fusiformes, breviter calcaratæ. *Tarsi* breves. *Corpus* angustum, parallelum, setosum.

A narrower and more convex form than *Synchita*, Hellw., to which it is very nearly allied, but without the marginal dilatation of the prothorax of that genus. The posterior coxæ are rather more remote than usual, but the triangular form of the interfemoral process leaves no doubt as to its subfamily. There is no antennal groove.

*Bupala pullata.* (Pl. VIII. fig. 3.)

*B.* rufo-brunnea, opaca, elytris pedibusque dilutioribus.
*Hab.* Saylee.

Reddish brown, opake; elytra, legs, and antennæ pale; head short, transverse, rounded anteriorly, rough with short scaly setæ; lip transverse, rounded in front; mandibles entire at the apex; maxillary lobes subequal; mentum quadrangular, narrower anteriorly; labrum subqua-

drate, narrowed behind, fringed with short hairs anteriorly, its palpi inserted towards the centre; antennæ ten-jointed, slightly concealed at the base, the first and second joints incrassate, the remainder to the ninth shortly transverse, the tenth forming a solid, rounded club; prothorax quadrate, or nearly so, with short, erect setæ; scutellum small, punctiform; elytra not broader than the prothorax, slightly depressed, the sides parallel, each with five rows of erect setæ, between each of which are two other rows of smaller setæ; body beneath reddish brown, the abdomen with short scattered hairs; tibæ subtrigonate, shortly spurred; tarsi very short, especially of the anterior pair. Length 1½ line.

### Caprodes.

*Caput* breve, transversum. *Antennæ* basi tectæ, 11-articulatæ, articulis duobus basalibus incrassatis, clava biarticulata, sulcis antennariis brevibus. *Prothorax* convexus, subquadratus, lateribus dentato-setosis. *Elytra* convexa, parallela. *Tibiæ* fusiformes, inermes. *Corpus* breviter convexum, parallelum, setosum.

A more convex form than *Synchita*, to which it appears to me to be the most nearly related of all the genera of this subfamily, but from which it differs in the eleven-jointed antennæ and in the fusiform tibiæ. The head in both is very short, a little elevated before the eyes, above the insertion of the antennæ, and then terminating in a straight line, to which the narrow but well-developed lip is attached. The specimen now in my collection is the only one I have seen. Mr. Wallace informs me that it was taken at the lamp.

### *Caprodes asper*. (Pl. VIII. fig. 4.)

*C.* fuscus, rude punctatus; prothoracis lateribus, labro, antennis pedibusque ferrugineis.

*Hab.* Saylee.

Dark brown, coarsely punctured and covered with rather long, stiff, erect setæ; head short, transverse, very rugose; lip narrow, smooth; mandibles simple at the apex, but with a strong tooth internally; antennæ ferruginous, only slightly covered at the base, 11-jointed, the two basal joints incrassate, the remainder, except the two last, which form a rounded, depressed club, shortly obconical; antennary grooves short; prothorax convex, subquadrate, slightly transverse, the sides ferruginous anteriorly, not dilated, but very distinctly toothed, each tooth bearing a slender seta; scutellum punctiform; elytra scarcely broader than the prothorax, short, convex, rugosely impressed, the sides very slightly rounded; body beneath chestnut-red, sparingly punctured, those on the metasternum fewer and longer, fourth abdominal segment shorter than the three preceding segments; legs ferruginous; tibiæ fusiform, sparingly setose; tarsi rather slender. Length 1¼ line.

*Distaphyla Wallacei.*

*D.* cylindrica, obscure fusca; prothorace lobis irregulariter divisis; spatio discali angusto, lævissimo, postice canaliculato.

*Hab.* Mysol.

Cylindrical, dull brown, covered with scattered, whitish, setose scales; head subtriangular, very concave above and behind the eyes; antennæ short, pitchy; prothorax covered with large, coarse tubercles, the lobes strongly separated in front, but slightly separated above; a narrow and very smooth and glossy space on the disk, which is drawn out or becomes canaliculate behind, and extends nearly to the base; an elliptic, shining excavation on each side, which communicates with the transverse fissure behind the lobes; elytra seriate-punctate, with the scales in lines; body beneath dark brown, with large coarse punctures, each containing a whitish scale, the last two abdominal segments smooth; legs pitchy. Length $2\frac{1}{2}$ lines.

I have already stated that *Distaphyla* is synonymous with *Ogcodera* (Dej.). Two species are mentioned in that author's "Catalogue," from Cayenne and Carthagena respectively; whether either of these is referable to any of the three species described by me from the Amazon valley I do not know, but, as one of the most remarkable genera among the Coleoptera, we might have expected it would have had a comparatively limited range. I was therefore somewhat surprised to find this very distinct species in Mr. Wallace's collection from Mysol, an island about one degree west of the northern portion of New Guinea. Motschoulsky, in his 'Études' for 1855, p. 13, *mentions* "a very singular genus of Colydiidæ with the cylindrical habit of *Anobium*, and the tuberculate and rugose sculpture of *Dictyalotus*; the posterior part of the head is marked with two large protuberances:" he calls it *Colydodes gibbiceps*. As he refers the two "protuberances" to the *head*, we cannot in charity suppose that it has anything to do with *Distaphyla*. I only allude to it here to inquire if the sort of "honourable mention" quoted above is sufficient to constitute a description giving it the right to the protection of the law of priority? *Distaphyla Wallacei* is at once distinguished by the sides of its prothorax being parallel; this gives it a more perfectly cylindrical outline than is possessed by the other species. It has also a more triangular head; and the deep excavation at the inner side and behind the eye forms a sort of peduncle to that organ—a structure which is remarkably developed in the allied genus *Acropis*. *Distaphyla speculifera* makes also a slight approach to the same structure.

### Xuthia.

*Caput* insertum, transversum, antice rotundatum. *Antennæ* basi tectæ, 11-articulatæ, clava biarticulata, sulcis antennariis nullis. *Prothorax* subquadratus, utrinque bicostatus, lateribus anguste marginatis, crenulatis. *Elytra* costata, parallela, convexa. *Tibiæ* trigonatæ, calcaratæ. *Tarsi* breves. *Corpus* angustum, subcylindricum.

There is very little to distinguish this genus from *Bitoma*, with which indeed it agrees in all its essential characters; but the narrower and more cylindrical form, stronger and more trigonate tibiæ, and shorter tarsi give it an aspect so different as, it appears to me, to warrant its generic separation. It is difficult to distinguish the species by description beyond the colour, which appears, in several specimens of two of the species, to be pretty constant; of the third species (*Xuthia maura*) I have only one specimen. The prothorax appears to have been clothed with fine, numerous but scattered hairs.

#### *Xuthia siccana*. (Pl. VIII. fig. 1.)

*X.* vix elongata, fusco-ferruginea; elytris dilutioribus; antennis pedibusque rufo-ferrugineis.

*Hab.* Macassar.

Scarcely elongate, dull brownish ferruginous, much lighter on the elytra; head transverse, rounded anteriorly, coarsely granulate, lip very transverse, slightly emarginate; mandibles bifid at the apex; mentum transverse, labrum roundish anteriorly and fringed; maxillary lobes small, the inner very narrow; labial palpi with the terminal joint stout, truncate, the maxillary palpi with the terminal joint short and obliquely truncate; antennæ as long as the head, ferruginous, shining, the first two joints incrassate, the last two forming a compact, shortly ovate club; prothorax nearly quadrate, coarsely granulate, with two rather slightly elevated costæ on each side, the inner very much converging at the base and hooked inwards anteriorly; scutellum small, quadrate; elytra with five well-marked carinæ (including the sutural), the intervals with a double row of deep, square punctures; body beneath dark ferruginous, very coarsely punctured; legs reddish ferruginous; tibiæ short, trigonate, calcarate; tarsi with the three basal joints very short. Length 1¼ line.

#### *Xuthia rufina*.

*X.* modice elongata, ferruginea; antennis pedibusque concoloribus.

*Hab.* Macassar.

Closely resembles the last; but the elytra are decidedly longer and concolorous, and the body beneath is a little more finely punctured.

*Xuthia maura.*

*X.* angustior, fusca; antennis pedibusque ferrugineis.
*Hab.* Morty.

Also very nearly allied to the first species, but considerably narrower, with the costæ on the prothorax and elytra more decided, the colour a very dark brown, nearly black, with the antennæ and legs ferruginous.

These three forms of *Xuthia* are much too nearly allied to be considered "undoubtedly distinct," but, in the absence of intermediate varieties, they are sufficiently marked to deserve a place in our catalogues.

EBA.

*Caput* breve, transversum, antice marginatum. *Antennæ* basi tectæ, 10-articulatæ, articulo basali incrassato, cæteris sensim crassioribus, ultimo rotundato compresso. *Prothorax* subquadratus, antice paulo sinuatus. *Elytra* parallela. *Tibiæ* subtrigonatæ, calcaratæ; *tarsis* gracilibus. *Corpus* oblongum, subdepressum, lævigatum.

A single minute species, having a strong general resemblance to *Cerylon*, constitutes this genus. Its characters, however, place it with the *Synchitinæ*, from all the genera of which it differs in its ten-jointed antennæ, gradually enlarging upwards. For the present its affinities must be left in doubt.

*Eba cerylonoides.* (Pl. VIII. fig. 7.)

*E.* rufo-testaceum, nitidum; oculis nigris.
*Hab.* Saylee.

Oblong, subdepressed, reddish testaceous, shining; head strongly punctured, short, transverse, with a margin which is somewhat reflected anteriorly and hiding the lip; eyes black; antennæ 10-jointed, slightly covered at the insertion, the basal joint slightly incrassate, the remainder to the ninth inclusive shortly obconical and gradually increasing in breadth, the tenth paler, about equal in length and breadth, and slightly pointed; prothorax nearly quadrate, not very closely punctured; scutellum very transverse; elytra as wide as the prothorax, strongly seriate-punctate; body beneath testaceous, shining; tibiæ subtrigonate, shortly spurred; tarsi rather slender. Length $\frac{3}{4}$ line.

*Phormesa prolata.*

Pascoe, huj. op. i. p. 102 (*Bitoma*).—Batchian.

The addition of five new species to this genus (*Phormesa*) brings the number up, with those previously published belonging to Mr. Wallace's collections, to eight. The following table will show their principal distinctive characters.

With two costæ on each side of the prothorax, the inner forming a loop posteriorly.
  Outer costa entire, strongly marked.
    Space between the two inner costæ and the posterior loops simply granulate.
      Margins of the prothorax regularly crenate .... *P. heros*, n.s.
      Margins of the prothorax irregularly rugose.
        Costæ of the elytra strongly crenate ..... *P. prolata*, Pasc.
        Costæ of the elytra feebly crenate..... *P. varia*, n. s.
    Space between the two inner costæ and the loops with two longitudinal raised lines ..... *P. nana*, n. s.
  Outer costa interrupted, feebly marked.
    Prothorax broadest before the middle ..... *P. lunaris*, Pasc.
    Prothorax broadest behind the middle.
      Margins of the prothorax regularly lobed .... *P. inornata*, Pasc.
      Margins of the prothorax nearly entire ..... *P. detracta*, n. s.
With one costa only on each side ..... *P. elevata*, n. s.

I have four more species belonging to this genus in my collection; in none of these does the inner costa form a complete loop, although in all it doubles back more or less posteriorly. All the species have five costæ on each elytron, the intervals being marked with a double row of large, squarish punctures.

*Phormesa heros.*

*P.* fusca; prothorace marginibus regulariter crenatis, utrinque bicostato, costa exteriore integra, valida; elytris obscure luteo maculatis.

*Hab.* Dorey; Morty.

Moderately broad, dark brown, opaque; head thickly granulose; prothorax roughly granulate, the sides slightly rounded, the margins minutely but very distinctly and regularly crenate, the external costa strongly marked, the inner forming a large loop posteriorly which extends nearly to the base; scutellum punctiform; elytra oblong, scarcely broader than the prothorax, the costæ strongly marked and crenate, with large, deep punctures in a double row between them; body beneath chestnut-brown, granulate; legs and antennæ dark chestnut-red. Length $2\frac{1}{4}$ lines.

The largest of the genus, and best distinguished from *Phormesa prolata* by the regular crenatures of the margins of the prothorax, contrasted with their confusedly rugose appearance in that species.

*Phormesa varia.*

*P.* fusco-ferruginea; prothorace marginibus lineato-rugosis, utrinque bicostato, costa exteriore integra; elytris ferrugineo variegatis, costis leviter crenatis.

*Hab.* Amboyna.

Moderately broad, ferruginous brown; head rather narrow, closely granulate; prothorax ferruginous at the sides, rather finely granulate, the margin slightly rounded, with a narrow elevated rugose line, as if composed of small confluent granules, the external costa entire, the inner forming an oblong loop posteriorly; scutellum punctiform; elytra oblong, not broader than the prothorax, the costæ finely crenate, a large, irregular ferruginous patch occupying nearly the whole of the basal half, and an irregular curved band near the apex of the same colour; body beneath reddish chesnut with closely-set oblong granulations; legs and antennæ ferruginous. Length $1\frac{1}{2}$ line.

In addition to the characters given in the table, this species is further distinguished from its allies by its smaller size, lighter colour, and the lengthened loop of the inner costa of the prothorax, which is fully one-half as long as the enclosed space formed by those inner costæ.

*Phormesa nana.*

*P.* subfusca; prothorace marginibus crenatis, costa exteriore integra, interiore antice incurva.

*Hab.* Amboyna.

Moderately broad, dusky brown; head scarcely dilated below the eyes, granulate; prothorax scarcely granulate, the margins finely crenate and scarcely rounded at the sides, the external costa very strongly marked, the inner in addition to the posterior loop incurved anteriorly, so as to form a second loop, both loops distinct from those of the opposite side; elytra with slightly crenate costæ, the intervals with a double row of punctures; body beneath dark ferruginous, minutely punctured; legs and antennæ ferruginous. Length 1 line.

This is the smallest species of the genus, and well distinguished by the prothoracic costæ.

*Phormesa lunaris.*

Pascoe, *ante*, p. 32.—Dorey.

*Phormesa inornata.*

Pascoe, *ante*, p. 32.—Dorey.

*Phormesa detracta.*

*P.* fusca; prothorace marginibus subintegris, utrinque bicostato, costa exteriore interrupta, haud distincta.

*Hab.* Mysol.

Moderately broad, dark brown; head granulate, broad, expanding below the eyes; prothorax rather finely granulate, the sides not lobed although somewhat irregular, the external costa reduced to a line of

slightly elevated granules, which is interrupted in the middle, the inner costa forming posteriorly a triangular loop, the interval between the two loops forming a lozenge-shaped space; scutellum punctiform; elytra as broad as the prothorax, with crenate costæ, the intervals so impressed as to form three lines of oblong elevations; body beneath rufous brown, finely punctured; antennæ and legs ferruginous. Length $1\frac{1}{2}$ line.

The triangular form of the posterior loops, which are confluent at one of their angles, thus forming a lozenge-shaped space at the base, will readily distinguish this species.

*Phormesa elevata.*

*P.* fusca; prothorace costa exteriore obsoleta, interiore postice breviter incurva.

*Hab.* Macassar.

Rather broad and convex, especially posteriorly, dark brown; head broad, dilated below the eyes, granulate; prothorax granulate, rounded at the sides with an obscurely rugose margin, no external costa, internal costa simply incurved posteriorly, not forming a loop; scutellum punctiform; elytra rather broader than the prothorax, strongly costate, the inner and second costæ depressed near the base, the intervals with obscure transverse impressions, three or four ill-defined luteous bands on the disk; body beneath dark ferruginous; legs and antennæ ferruginous. Length $1\frac{1}{2}$ line.

A very distinct species. The absence of the external costa, together with the internal costa not forming a loop, will distinguish it from all *Phormesæ* hitherto described, as well as some others in my collection, in which the last-mentioned character is also present.

Gempylodes.

*Caput* exsertum, oblongum. *Antennæ* basi tectæ, 11-articulatæ, haud clavatæ, articulo basali brevi, vix incrassato, tertio longiore, cæteris gradatim crassioribus. *Oculi* prominuli, integri. *Prothorax* elongatus, basi constrictus, medio canaliculatus vel sulcatus. *Elytra* cylindrica, carinata, apice declivia. *Tibiæ* trigonatæ, calcaratæ. *Tarsi* elongati. *Corpus* angustum, elongatum.

Erichson has described in very few words a genus from Madagascar named *Mecedanum*, evidently allied to this, but which, I think, will be found to differ in the character of its prothorax; and, according to the description, in the antennæ fringed with fine hairs, and in the greater length of the basal joint of the tarsi. *Colydium* is also another genus to which this is allied. I have another species, from Siam, for which I am indebted to the kindness of W. Wilson Saunders, Esq., which is one of the finest of the Colydians.

*Gempylodes macer.* (Pl. VIII. fig. 2.)

*G.* rufo-brunneus; prothorace vage punctato, latissime sulcato.

*Hab.* Batchian.

Rufous brown, clearer on the elytra except towards the apex; head rather finely punctured, the side reflected upwards over the insertion of the antennæ; eyes rather prominent, transversely oblong, entire; antennæ slightly compressed, 11-jointed, the basal joint short, thick, the second shorter but less robust, the third twice as long as the second, the fourth to the tenth gradually becoming shorter and more and more transverse, the eleventh broadly subovate; prothorax about twice and a half as long as broad, rather loosely punctured, a broad groove extending longitudinally the whole length, but rather narrower anteriorly; scutellum punctiform; elytra strongly ribbed, the intervals with two rows of large, deeply impressed punctures, but in the sutural interval one row only; body beneath yellowish ferruginous, with small distant punctures on the propectus, coarser on the abdomen, basal segment with a strong longitudinal keel; antennæ brown; legs ferruginous. Length $2\frac{2}{3}$ lines.

The Siam *Gempylodes* mentioned above, besides many other characters, has only a very narrow impressed line on the prothorax.

*Ocholissa humeralis.*

*O.* atra, nitida, macula humerali crocea; antennis tarsisque ferrugineis.

*Hab.* Saylee; Morty; Mysol; Batchian.

Black, shining; head rather rounded anteriorly, moderately punctured; prothorax nearly quadrate, rather distantly punctured; scutellum broadly transverse; elytra not broader than the prothorax, seriate-punctate, a large dark-yellow spot on each shoulder; body beneath dark brown, shining, remotely punctured; legs dark ferruginous brown, the tarsi and antennæ a pale ferruginous. Length 1 line.

Extremely like *Ocholissa læta* (*ante*, p. 85) from the Amazons. Besides the difference in colour (and this is variable inasmuch as the elytra are sometimes entirely black), the head is more rounded in front, and the prothorax is slightly contracted posteriorly.

*Nematidium posticum.*

*N.* ferrugineum; fronte leviter convexa; elytris singulis postice bicristatis.

*Hab.* Sarawak.

Linear, ferruginous; head slightly convex, finely punctured; eyes of moderate size, not prominent; prothorax twice as long as broad, the sides nearly parallel, the disk with many oblong punctures; scutellum triangular; elytra elongate, punctate-striate, the third and seventh

striæ respectively rising posteriorly into a short but strongly marked ridge, the outermost only extending to the apex; body beneath pitchy brown, moderately punctured; antennæ, palpi, and legs ferruginous. Length 3 lines.

The two very prominent ridges on the declivous apex of each elytron at once separate this species from its Brazilian congeners.

### Ithris.

*Caput* subquadratum, lateribus elevatis. *Antennæ* basi tectæ, 11-articulatæ, clava triarticulata, submoniliformi. *Palpi* breves, apice truncato. *Prothorax* subquadratus, quadricostatus. *Elytra* parallela, carinata. *Tibiæ* trigonatæ, breviter calcaratæ. *Tarsi* articulis tribus primis brevissimis. *Corpus* breviter subcylindricum.

This genus has a very close general resemblance to *Eulachus*, Er., and appears to differ from it only in the three-jointed club of the antennæ and in the very short basal joints of the tarsi. From *Colydium*, which has also a three-jointed club, it is separated by its ribbed prothorax, short tarsi, and other characters.

### *Ithris decisa.* (Pl. VIII. fig. 9.)

*I.* rufo-brunnea, opaca; antennis pedibusque ferrugineis.
*Hab.* Sarawak.

Reddish brown, opaque; head subquadrate, raised at the side anteriorly, and forming a thin plate over the antennæ, the front remotely granulate; eyes rather large, prominent; antennæ 11-jointed, the two basal joints incrassate, the six following more or less transverse, the last three forming a stout submoniliform club, which is above a third of the length of the antenna; prothorax subquadrate, a little longer than broad, the front somewhat produced, the posterior margin rounded, the sides nearly parallel, crenate, the disk with four longitudinal costæ, the two central approximating at the base, the intervals remotely granulate; elytra not broader than the prothorax, the sides parallel, with four stout carinæ on each, their edges crenate, the intervals with a double row of squarish punctures; tibiæ trigonate, shortly spurred; tarsi with the first three joints very short; body beneath ferruginous, slightly punctured, the abdomen with short elevated lines. Length 1 line.

*Petalophora brevimana.*

Pascoe, *ante*, p. 37.—Sarawak.

*Metopiestes hirtifrons.*

Pascoe, *ante*, p. 38.—Dorey.

*Metopiestes castaneus.*

*M.* rufo-castaneus, nitidus; fronte subplana, punctata; prothorace distincte punctato.

*Hab.* Mysol.

Subcylindrical, reddish chestnut, shining; head rather flattish in front, with closely set, small, round punctures; prothorax rather longer than broad, very concave, contracted posteriorly, with small, oblong, rather distant punctures, a short semicircular elevated line at the base; scutellum rounded or punctiform, small, but very distinct; elytra parallel, with five very strongly marked carinæ on each, the interstices nearly impunctate; antennæ and legs ferruginous. Length $2\frac{1}{2}$ lines.

Differs from *Metopiestes hirtifrons* in being smaller and less robust, without hairs on the front, and in its rounded (not oblong or ovate) scutellum.

*Metopiestes erosus.* (Pl. VIII. fig. 11.)

*M.* fuscus, subopacus; fronte excavata, griseo hirta; prothorace leviter oblongipunctato.

*Hab.* Batchian.

Subcylindrical, dark brown, nearly opaque; head hollowed out in front, the hollow very clearly limited above by a rounded line separating it from the vertex, the interior irregularly granulated and filled with scattered greyish hairs: prothorax considerably longer than broad, convex, scarcely contracted behind, covered with closely set, minute, oblong punctures; scutellum punctiform; elytra parallel, with five rather strongly marked carinæ on each, the interstices impunctate; legs and antennæ reddish chestnut, shining. Length $1\frac{1}{2}$ line.

The smallest and, proportionally, the slenderest of the three species, and otherwise well characterized by its longer and finely-punctured prothorax, and the very remarkable excavation which occupies nearly the whole of the space between the eyes and the lip. This character is probably sexual, the presence of hairs distinguishing only the males.

*Machlotes incisus.*

*M.* rufo-fuscus, opacus; prothorace utrinque tricostato, sulcis nitidis, basi costis duabus latis; elytris sulcatis, sulcis biseriatim punctatis.

*Hab.* Morty.

Dull reddish brown; head coarsely punctured; prothorax half as long again as broad, narrowed behind, truncate and a little gibbous in front, slightly rounded at the sides, the anterior angles prominent, the disk with three very broad costæ on each side, which are interrupted posteriorly by a deep irregular cleft completely dividing all but the external costa on each side, the two intermediate costæ of the basal

portion as broad as the corresponding costæ of the anterior portion, the sulci between them smooth and shining; scutellum punctiform; elytra elongate-ovate, broadly sulcated, the sulcations with a double row of strong punctures, the interstices sharply raised; body beneath chestnut-brown, with large, crowded, shallow punctures, each furnished with a greyish seta; palpi pale ferruginous. Length 1½ line.

The principal differences between this species and *Machlotes porcatus* (*ante*, p. 36) are, that in the latter the posterior portion of the two intermediate costæ is contracted, so as to form a sort of bifid or bilobed tubercle, the costæ being also much narrower and the intervals between them opaque, and the single row of squarish punctures pitting the sulcations on the elytra. My specimen is the only one I have seen.

*Bothrideres marginatus.*

*B.* elongato-ovatus, fuscus, subopacus; prothorace reticulato-punctato, disco linea parallelogrammum includente impressa, lateribus canaliculatis.

*Hab.* Sarawak.

Elongate-ovate, dark brown, subopaque; head convex in front, closely punctured; prothorax about equal in length and breadth, rounded at the sides, contracted posteriorly, very closely punctured, the punctures rather large and having a reticulated appearance, the disk with an impressed line, including a squarish space, and opening out into three short canals posteriorly, a narrow groove on each side near the margin; scutellum small, triangular; elytra with five raised lines on each, the intervals with two lines of punctured striæ; body beneath dark brown, coarsely punctured on the sterna, more finely and remotely on the abdomen; antennæ and legs dark brown; palpi inclining to testaceous. Length 2½ lines.

The impressed line including a parallelogrammical space on the prothorax, and the reticulated appearance caused by the closely-set punctures around it will readily distinguish this species, which otherwise has a considerable resemblance to *Bothrideres illusus*, Newm., an Australian form.

*Bothrideres insularis.*

*B.* subangustus, fusco-castaneus, nitidus; prothorace subtilissime punctato, disco linea parallelogrammum includente impressa, lateribus marginatis.

*Hab.* Mysol.

Rather narrowly oblong, dark chestnut, shining; head convex in front, moderately punctured; prothorax about equal in length and breadth, the sides rounded, and contracted behind, minutely punctured,

the disk with a strongly impressed line, including a squarish space, and opening out into three short canals posteriorly, the side slightly margined and terminating behind in a nearly acute angle; scutellum triangular; elytra with five narrow raised lines on each, the sutural one nearly obliterated, the interval with two slightly punctured lines; body beneath dark chestnut-brown, with small scattered punctures; palpi and antennæ at the base ferruginous. Length 2 lines.

Though this species has the same impressed line on its prothorax as the last, in its outline and glossy surface it is more akin to the Australian *Bothrideres anaglypticus*, Germ., but is less depressed, and the sides of the elytra more parallel. The two following species are provisionally assumed to be aberrant members of the group.

*Bothrideres rhysodoides.*

Pascoe, *ante*, p. 35.—Dorey.

*Bothrideres nocturnus.*

Pascoe, *ante*, p. 35.—Dorey.

*Dastarcus confinis.*

Pascoe, huj. op. i. p. 108.—Dorey.

*Dastarcus vetustus.*

*D.* oblongo-ovatus, fuscus; prothorace antice subrotundato, postice paulo constricto; elytris punctato-sulcatis, punctis magnis, interstitiis seriatim griseo squamosis, postice obsolete emarginatis.

*Hab.* Ceram.

Oblong-ovate, dark brown; head small, rather remotely punctato-squamose; basal joint of the antennæ ferruginous; prothorax gradually rounded anteriorly, slightly contracted at the base, covered with erect greyish scales; elytra moderately convex, very slightly emarginate posteriorly, punctato-sulcate, the punctures large and oblong, the interstices with mostly a single row of greyish scales; body beneath dark brown, subnitid, with coarse remote punctures; tarsi ferruginous, shining. Length 4 lines.

Smaller and less robust than *Dastarcus confinis*, the scales on the elytra mostly in single rows, and with only a faint trace of the deep emargination which characterizes that species.

*Dastarcus pusillus.*

*D.* oblongo-ovatus, fuscus; prothorace lateribus subrotundatis, postice vix constricto; elytris basin versus elevatis, postice obsolete emarginatis, punctato-striatis, interstitiis seriatim griseo squamosis.

*Hab.* Ceram.

Oblong-ovate, dark brown; head punctato-squamose; antennæ and palpi ferruginous; prothorax slightly rounded at the sides, scarcely contracted at the base, covered with erect greyish scales; elytra a little raised towards the base, very slightly emarginate near the apex, punctato-sulcate, the interstices with scattered greyish scales; body beneath dark brown, subnitid, with a few large punctures; legs reddish pitchy. Length $2\frac{1}{4}$ lines.

The small size and "peaked" elytra will distinguish this species. Besides the three members of this genus described in this work and the typical *Dastarcus porosus* of Mr. Walker, I have also three very distinct species from India, and a fourth, which, however, departs in some respects from the usual characters of the genus, from Fiji.

*Trachypholis æqualis.*

*T.* parallelo-oblonga, fusca, opaca, squamis albescentibus parce tecta; antennis pedibusque ferrugineis.

*Hab.* Timor.

Parallelo-oblong, dark brown, opaque, rather sparsely covered with very small, erect whitish scales; head rounded anteriorly; prothorax very transverse (twice as broad as long); elytra with the scales scarcely arranged in lines; body beneath black, subopaque, with appressed, greyish setæ; antennæ and legs ferruginous, covered with pale greyish-white setæ. Length 3 lines.

*Trachypholis*, Er. (Naturg. Ins. Deutschl. iii. p. 257) is synonymous with *Tarphiodes*, § I., Woll. (huj. op. i. p. 372). The first-mentioned author compares it to *Colobicus*, the latter to *Tarphius*, at the same time placing with it, but under another section ("subgenus" *Tarphiosoma*), *Tarphiodes Indicus*, which I regard as being generically very distinct, and to which the name of *Tarphiosoma* may be applied. It will be seen that I have placed *Trachypholis* with the Bothriderinæ, although the posterior coxæ are only moderately apart and the basal segment of the abdomen is only a degree larger than the second; but its affinity to *Dastarcus* on the one hand, and through *Tarphiosoma* to *Tarphius* on the other, is too evident to admit of any other location. It is, however, to be observed that Erichson places the latter genus with the Synchitinæ, notwithstanding that its posterior coxæ are widely remote. The species described above is characterized principally by its dull, opaque colour and the more regular distribution of its scales, which are scarcely arranged in lines on the elytra as in four other species now before me. The late M. Mouhot sent to this country a considerable number of individuals of a species of this genus, which, through the kindness of

Dr. Schaum in transmitting the original specimen, I have been able to identify with the *second* species from Siam mentioned by Erichson. The *Opatrum hispidum*, Weber, the type of the genus, is unknown to me, but may possibly be identical with *T. Bowringii*, Woll.

*Chorites aspis* *.

Pascoe, huj. op. i. p. 115.—Sarawak.

*Chorites latus.*

*C.* late ellipticus, niger, griseo-nigro squamatus; prothoracis lateribus integris; elytris medio elevatis vel gibbosis.

*Hab.* Singapore.

Broadly elliptic, black, with greyish and black erect scales; prothorax entire towards the side or only very slightly concave; elytra strongly elevated or gibbous in the middle; legs and antennæ dark ferruginous. Length $2\frac{1}{2}$ lines.

Very nearly allied to *Chorites aspis*, differing principally in its greater breadth, more entire prothorax, and elytra culminating less obtusely in the centre.

*Chorites oblongus.*

*C.* oblongo-ovatus, niger, griseo squamatus; prothorace utrinque excavato, margine reflexo.

*Hab.* Macassar.

Oblong-ovate, black, with mostly greyish scales; prothorax very concave at the sides, the margin reflexed; scutellum small, triangular; elytra moderately convex, and only slightly gibbous in the middle; antennæ and legs dark ferruginous. Length $2\frac{3}{4}$ lines.

This species approaches *Trachypholis* in its oblong outline and margined prothorax, but in other characters it agrees better with *Chorites*.

*Hyberis araneiformis.*

Pascoe, huj. op. i. p. 113.—Sarawak.

*Hyberis Wallacei.* (Pl. VIII. fig. 5.)

*H.* oblongo-ovatus, niger, subnitidus, tuberculo-setosus; prothorace haud fasciculato, lateribus dentato-serratis.

*Hab.* Sarawak.

Oblong-ovate, black, somewhat shining, roughly tuberculate with short black setose hairs; head with very large closely-set tubercles; prothorax rather broader than long, with about a dozen short teeth on

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* The following diagnosis will serve for this species:—

*C.* elliptico-ovatus, niger, griseo squamatus; prothorace utrinque leviter excavato, margine haud reflexo.

each side, the disk simply tuberculato-setose; elytra broadest in the middle, the edges tuberculate, the tubercles arranged in rows on the disk, two small buff-coloured fascicles of hairs at the base of each elytron and two more towards the apex; body beneath dull black, with grey setæ; antennæ and legs black, setose, tarsi ferruginous. Length $3\frac{1}{4}$ lines.

A fine and very distinct species, differing in many respects from *Hyberis araneiformis*, as a comparison of the descriptions of the two will show. I have another species, from Java.

### Atyscus.

*Caput* immersum, subquadratum. *Antennæ* setigeræ, basi tectæ, 10-articulatæ, articulis basalibus haud incrassatis, clava articulo unico ovato. *Prothorax* transversus, antice bisinuatus postice constrictus, lateribus rotundatis, crenato-setosis. *Elytra* ovata, convexa. *Pedes* elongati, *tibiis* fusiformibus, setigeris, *tarsis* gracilibus. *Corpus* ovatum, convexum, setoso-squamosum.

The club of the antennæ in this genus *appears* to be composed of only one joint, as in *Apeistus* and *Hyberis*. From the latter of these genera *Atyscus* differs in the margins of the prothorax not being toothed, in its setæ assuming more the character of scales, and in the absence of tubercles. The eyes, as in *Hyberis*, are not, or only very sparsely, setose. In *Trachypholis* and *Chorites* they are completely so.

### *Atyscus argutus*. (Pl. VIII. fig. 8.)

*A.* latus, fuscus, griseo squamatus; elytris breviter ovatis, basi vix constrictis, lateribus subparallelis.

*Hab.* Tondano.

Broadly ovate, dark brown, covered with small, greyish, squamiform hairs; head subquadrate; antennæ 10-jointed, the first three joints of nearly equal size, the remainder, except the last, shorter and more or less obconic, furnished with a whorl of stiff setæ, the tenth ovate, but not thicker than the others; eyes round, not setose; prothorax transverse, the sides rounded, with a fringe of stiff scales; scutellum small, distinct; elytra short, scarcely contracted at the base, the sides nearly parallel, the disk with the scales arranged in rows; body beneath dark brown, subnitid, with small oblong raised lines; legs dark brown, fringed; tarsi slender, ferruginous. Length $2\frac{1}{2}$ lines.

### *Atyscus squalidus*.

*A.* oblongus, fuscus, griseo squamatus; elytris ovatis, lateribus rotundatis.

*Hab.* Sarawak.

Oblong-ovate, dark brown, with small squamiform hairs; head with

small, flattish granules in front; prothorax short and very transverse, much contracted behind, the sides rounded, closely fringed with stout, stiff setæ; scutellum very small but distinct; elytra ovate, contracted at the base, rounded at the sides, the squamæ arranged in lines; body beneath dark brown, closely punctured; legs and antennæ ferruginous. Length $1\frac{3}{4}$ line.

A much narrower insect than the last, the elytra more rounded at the sides, &c. In both the scales or setæ are arranged in rather numerous lines on the elytra.

*Minthea similata.*

*M.* brunnea; capite lateribus integris; prothorace medio depresso; elytris vage seriatim squamosis.

*Hab.* Saylee.

Reddish brown; head broadly triangular with greyish scales, the sides entire; prothorax somewhat broader than the head anteriorly, narrower behind, depressed in the middle, with scattered greyish scales; scutellum minute; elytra a little broader than the prothorax, with greyish erect scales arranged in a few distant but very distinct rows; body beneath reddish brown, finely punctured; legs and antennæ reddish brown. Length 1 line.

The characters of *Minthea* are given at page 97 of this volume. The species there described from the Amazons is exceedingly like the present, differing principally in the longer terminal joint of the antennæ and more convex prothorax.

*Minthea dentata.* (Pl. VIII. fig. 10.)

*M.* fulvo-brunnea; capite lateribus tridentatis; elytris subtiliter squamosis.

*Hab.* Xulla.

Pale reddish or fulvous brown; head broadly triangular, the side above and below the eye terminating in three large recurved teeth; prothorax broader than the head, covered with small, erect, greyish scales; elytra slightly broader than the prothorax, rather closely covered with small greyish scales not arranged in definite lines; body beneath finely punctured; legs and antennæ yellowish ferruginous. Length $1\frac{1}{4}$ line.

A very remarkable species on account of the singular toothed sides of the head; the first of these teeth is directly above the eye, the two others occupying the rest of the space below it. In *Minthea similata* the club is about a quarter of the entire length of the antenna, in this species it is at least a third of the length.

*Penthelispa morio.*

*P.* fusca, nitida; prothorace subdepresso, medio longitudinaliter lævigato, modice punctato, angulis anticis haud productis, lateribus leviter rotundatis.

*Hab.* Mysol.

Dark brown, shining (in one specimen ferruginous); head moderately punctured; prothorax rather depressed, a smooth longitudinal space on the posterior two-thirds of the disk, each side of this space with a concave line with moderate-sized but very distinct punctures, the anterior angles not produced, the sides slightly rounded; scutellum small, triangular; elytra striato-punctate, the punctures oblong, the sides nearly parallel; body beneath dark brown, shining with coarse scattered punctures; antennæ dark brown; legs dark ferruginous. Length $1\frac{3}{4}$ line.

I only know of one other Asiatic *Penthelispa* (an undescribed species from Ceylon), which, *inter alia*, differs in having no smooth space on the prothorax.

*Cerylon punctipenne.*

*C.* oblongum, convexum, rufo-ferrugineum; prothorace antrorsum angustato, lateribus rotundatis, vage et fortiter punctato; elytris ovatis, fortiter seriatim punctatis.

*Hab.* Morty.

Size and form of *Cerylon histeroides*, but more convex, and reddish ferruginous, the prothorax strongly and remotely punctured, the scutellum transversely triangular; elytra more ovate and bearing a smaller proportion to the rest of the body, the punctures very coarse and arranged in rather distant lines; the tibiæ, especially the anterior, very much dilated at the distal extremity. Differs from *Cerylon orientale*, Motsch., in its greater convexity, larger prothorax more rounded at the sides, elytra more ovate and more coarsely punctured, &c. Length $1\frac{1}{4}$ line.

*Cerylon pusillum.*

*C.* oblongum, subparallelum, ferrugineum, nitidum; prothorace amplo, modice punctato; elytris striato-punctatis, striis basin versus incurvatis.

*Hab.* Mysol.

Oblong, nearly parallel, ferruginous, shining; head rather finely punctured; prothorax moderately punctured, as broad as the elytra at the base, the sides rounded; scutellum transversely scutiform; elytra nearly parallel at the sides, striate-punctate, the striæ at the base curving inwards towards the scutellum; body beneath ferruginous, nearly impunctate; tarsi much dilated at the distal extremity, antennæ and legs pale ferruginous. Length $\frac{2}{3}$ line.

The striæ of the elytra curving gradually inwards towards the scutellum will readily distinguish this species from any other known to me.

EXPLANATION OF PLATE VIII.

Fig. 1. *Xuthia siccana.* 1 *a*, trophi.
„ 2. *Gempylodes macer.*
„ 3. *Bupala pullata.*
„ 4. *Caprodes asper.*
„ 5. *Hyberis Wallacei.*
„ 6. *Cebia rugosa.* 6 *a*, trophi.
Fig. 7. *Eba cerylonoides.*
„ 8. *Atyscus argutus.*
„ 9. *Ithris decisa.*
„ 10. *Minthea dentata.*
„ 11. *Metopiestes erosus.*
„ 12. Trophi of *Hyberis araneiformis.*

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## XIII.—*An attempt at a Classification of the* Eumolpidæ.

By J. S. Baly.

Many of the families belonging to the great tribe of Phytophagous insects are in such a confused and unarranged state as doubtless to deter many persons from their study; they contain, however, equally with those better known and more commonly studied, numberless beautiful and striking forms, which will quite as amply repay patient investigation. Hoping to draw the attention of other entomologists to the study of these beautiful insects, I shall attempt, in the present series of papers, to draw up diagnostic characters of the numerous genera belonging to the *Eumolpidæ*, a group of Phytophaga in which (with the exception, perhaps, of the Gallerucidæ) less has been done than any other. The possession of a very large collection of my own, together with the power of access to the cabinet of the Rev. H. Clark, who now possesses the fine collections formerly belonging to MM. Chevrolat and Thomson of Paris, in addition to those collected by himself in Brazil, places a vast store of materials within my reach, the whole probably comprising, with few exceptions, all the known species. With the exception of a small number of genera formed by Fabricius, Laporte, and other entomologists, and also a few more recently established by myself in the first volume of this Journal, scarcely anything has been done to reduce the group into order or arrangement—all the large collections that I have had the opportunity of examining having had their species (nearly all undescribed) placed at random under one or other of the uncharacterized genera created by Chevrolat and Dejean in the 3rd edition of the Catalogue published by the latter, a single genus often containing insects belonging to four or five others, and, on the other hand, the species belonging to the same genus scattered about and placed under eight or ten different generic names, no two collections agreeing either in their nomenclature or arrangement.

The Eumolpidæ are most nearly allied to the true Chrysomelidæ,

and indeed, although their facies is so distinct that (with one or two exceptions) the merest tyro in entomology could easily separate the two families, still I know not any one set of characters by which they can be rigidly divided from each other. Lacordaire, in his 'Mon. des Phytoph.' tom. i. p. 1, mentions the bilobed third joint of the tarsus, taken in connexion with the toothed claw, as being the distinctive mark of the Eumolpidæ; these characters, however, exist conjointly in *Gastrophysa* and several allied genera of Chrysomelidæ. Dr. Stål (Mon. des Chrysom. de l'Amér. p. 4) points out the more or less globular anterior coxæ in the Eumolpidæ in contradistinction to the transverse anterior coxæ of the true Chrysomelidæ as separating the two groups. I myself, about the same time (Journ. of Entom. tom. i. p. 24), mentioned another character by which I thought the two groups might be separated, viz. the form of the anterior episternum *, this part of the body being always transverse in the Chrysomelidæ, and more or less quadrate or wedge-shaped in the Eumolpidæ; but on close investigation I find that these two characters, viz. the forms of the coxæ and episterna, mutually depend on each other: thus with a transverse coxa the episternum is confined to the upper edge of the cotyloid cavity, and is necessarily transverse; with a subglobular coxa, on the other hand, the episternum is produced downwards, halfway along the outer border of the coxa, forming the anterior half of the outer as well as the whole of the upper edge of the cotyloid cavity. These distinctive characters have a much wider application than those mentioned by Lacordaire, the only exception, as far as my present knowledge extends, being in the genus *Eurygope*, which, although a true Eumolpidous form, and agreeing in all other characters with that group, possesses the episterna and coxæ of a Chrysomelidous insect, thus appearing to unite the two families.

The Eumolpidæ may be characterized thus:—

Body rotundate, oblong or elongate, more or less cylindrical, generally glabrous above, at other times clothed with hairs or scales, which are usually adpressed. Head either moderately exserted or more or less deeply buried in the anterior cavity of the thorax; face perpendicular; antennæ simple, rarely shorter than the head and thorax, seldom exceeding the body in length, filiform or subfiliform, rarely incrassate; eyes notched or entire, distant; mentum short, transverse, frequently bent upwards into the head, its anterior margin usually emarginate, ligula corneous; terminal joints of palpi generally ovate, rarely clavate.

* This part was formerly named by me the antero-lateral process of the antepectus.

Thorax usually narrower than the elytra, occasionally equal in width, or even broader, convex or subcylindrical, in the latter case with the lateral margin frequently obsolete. Scutellum always distinct. Elytra usually broader than the thorax, humeral callus rarely prominent, inflexed border generally oblique, sometimes horizontal, upper surface punctate-striate or irregularly punctured. Legs moderate in length or elongate, the anterior pair being generally rather longer and stouter than the others; anterior coxæ subglobular or (*Euryope*) transverse, separated by a distinct prosternum; thighs more less incrassate, sometimes armed with a tooth beneath; tibiæ usually simple, occasionally notched at their apex, rarely armed with a spine on their outer or inner edges; third joints of tarsi always bifid; claws appendiculated, toothed or bifid. Prosternum elongate-oblong or wedge-shaped, sometimes transverse; mesosternum variable in shape, its surface oblique, the apex being always directed backwards.

The great majority are of brilliant metallic colours, the few non-metallic species being usually of a dull or sombre hue. They are for the most part of moderate or small size, a few only ranking with *Doryphora* and the larger Phytophaga. They are principally inhabitants of the warmer parts of the globe, diminishing both in number and beauty in colder latitudes. South America may perhaps be considered their great metropolis; I shall not here, however, enter into their geographical distribution, preferring to make short remarks on this subject under each subfamily or genus.

Little or nothing is known of their habits; but Mr. Bates, who has brought a large collection of these insects (now in my possession) from the Amazons, has kindly favoured me with some notes on the species collected by himself, which I insert entire in his own words.

"The Eumolpidæ of the equatorial parts of South America form a very conspicuous part of the insect fauna of those countries, not only from the number of their species and diversity of their forms, but from the great abundance in which they appear—in other words, the number of their individuals. In this latter respect they are exceeded (in the order Coleoptera) only by the Curculionidæ and the Gallerucidæ. The exposed situations in which they are found, namely, on the leaves of trees, and the brightness of their colours, also contribute to make them prominent objects in a woodland ramble. It is worthy of remark, that the closely allied subfamily Chrysomelidæ is far inferior in numbers of individuals and species and diversity of forms in the forests of the Amazons to the Eumolpidæ, whilst in Europe the reverse is the case. Thus the Chryso-

melidæ which I collected numbered only 55 species, belonging to 4 genera; whereas the Eumolpidæ reached the large figure of 250 species, comprising a large number of genera. In Europe this proportion is more than reversed; for the Chrysomelidæ number 236 species (11 genera), whilst the Eumolpidæ are represented only by 18 species (7 genera). The causes of this difference may perhaps lie in the circumstance that the Chrysomelidæ feed principally on shrubs, which form a large proportion of European vegetation, but constitute a subordinate feature in the equatorial forests, whilst the Eumolpidæ live on trees, whose proportion to the shrubby vegetation is immeasurably greater in the tropical forests than in Europe. Little can be said regarding the habits of the Eumolpidæ, all the species being very similar in their modes of life. A large number of them, however, seem confined to certain trees; and it is possible that considerable diversity might be found, were the food plants of each kind well ascertained, and their development from the egg to the perfect state carefully traced. Many of the larger metallic species are found only on arborescent Solanaceæ, or plants of the Potato order, which grow in all waste places and neglected gardens in the suburbs of towns and villages. All are gregarious in their habits, like the true Chrysomelidæ; and although they are not so obese in habit and slow in movement as those insects, they seem to make quite as little use as these of their power of locomotion. As they do not generally feign death and drop to the ground on the approach of danger, like the Clythridæ and many of the Chrysomelidæ, and have not the strange disguises of the Chlamydæ, or the tenacity of grasp on foliage of the Cassididæ and Hispidæ, or the nimble flight of the Megalopidæ, the reason of their existence in such large numbers in situations exposed to the depredations of birds and lizards may perhaps lie in their having some passive means of defence of which we are at present ignorant."

I propose breaking up the family into a number of subfamilies, founded rather on natural affinity than on technical characters.

Division I. Anterior episterna variable in shape, always prolonged backwards along the outer edge of the anterior coxæ.

### Subfamily I. Adoxinæ.

*Body* oblong or elongate, subcylindrical, non-metallic, clothed above with hairs or scales. *Thorax* commonly subcylindrical; its lateral margin usually obsolete, more rarely indicated by a faint ridge or irregular teeth; its lateral surface generally forming the segment of a circle with

the disk*; anterior episternum rarely well-defined. *Antennæ* filiform or subfiliform; *thighs* usually armed beneath; four posterior *tibiæ* for the most part simple, very rarely notched conjointly at their apex; *claws* (*Aulexis* excepted) bifid.

These insects are of moderate or small size, non-metallic, and of sombre hue, being either fuscous or black, and clothed commonly with concolorous hairs or scales; they form (one or two aberrant genera excepted) a very natural group. The subfamily is difficult to define in words, the most striking character in the great majority being the very cylindrical thorax, together with the absence of its lateral border. Although not numerous in species, they break up into a number of small genera, separated on apparently slight but nevertheless (according to my views) well-defined characters, viz. the nature of the pubescence, the form of the pro- and meso-sterna, the toothing of the thighs, &c. The species are spread over a considerable portion of the globe, being found in Europe, Asia (from Japan to the Malay archipelago), North and South America. *Adoxus*, the typical form of the group, characterized by Kirby in his 'Faun. Bor.-Amer.' on *Eumolpus vitis*, Fabr., an insect found both in North America and middle Europe, is the only genus belonging to the latter quarter of the world. Asia contains the following:—*Neculla* and *Trichotheca*, India; *Aoria*, China, Siam, and Malacca; *Adoxus*, the same, and also Japan; *Nephrella*, Ceylon; *Lypesthes*, Japan and China; *Leprotes*, Hongkong; *Demotina*, China, Ceylon, and the Malay archipelago; and *Aulacolepis*, Siam and Sumatra; together with the six following, peculiar to the Malay archipelago itself: viz., *Aulexis*, *Piomera*, *Metaxis*, *Apolepis*, to Borneo; *Stasimus*, to Singapore; and *Lepina*, to Sumatra, Java, and Pulo Penang. In North America are found (in addition to *Adoxus*) *Xanthonia* and *Fidia*. South America contains an equal number of species with the last, belonging to the genera *Habrophora* and *Brevicolaspis*—the former being natives of Peru and the Upper Amazons, the latter of Brazil. Africa and Australia have not (as far as my present knowledge goes) any representatives of the group.

### *Table of Genera.*

A. Body clothed above with hairs or fine hair-like scales.

*a*. Anterior edge of the prosternum separated from the episternum by a sutural groove ..... 1. *Adoxus*.

*a.a*. Sutural groove between the prosternum and episternum obsolete.

* *Aulacolepis* is an exception, and forms, with its distinctly margined thorax, a passage between this tribe and the *Heteraspinæ*.

*b*. Eyes entire or obsoletely sinuate.
*c*. Anterior edge of epistome unarmed.
*d*. Mesosternum bifurcate, transverse ..... 2. *Aoria.*
*d d*. Mesosternum entire or simply notched.
*e*. Elytra tuberculate ..... 3. *Stasimus.*
*e e*. Elytra not tuberculate.
*f*. Anterior pair of thighs enlarged and compressed, armed beneath with an acute tooth ..... 4. *Trichotheca.*
*f f*. Anterior pair of thighs of normal size.
*g*. Thorax slightly transverse and flattened above ..... 5. *Xanthonia.*
*g g*. Thorax regularly cylindrical above.
*h*. Thighs toothed beneath.
*i*. Body elongate, clothed above with silky hairs .. 6. *Lypesthes.*
*i i*. Body oblong, clothed with scale-like hairs ..... 7. *Neculla.*
*h h*. Thighs simple ..... 8. *Fidia.*
*c c*. Anterior edge of epistome armed with two flattened teeth ..... 9. *Aulexis.*
*b b*. Eyes distinctly notched.
*i*. Eyes distinctly notched, elongate, reniform.
*k*. Thighs armed with a stout tooth .....10. *Brevicolaspis.*
*k k*. Thighs simple.....11. *Nephrella.*
*j j*. Eyes distinctly notched, ovate or rotundate.....12. *Habrophora.*

B. Body clothed with regular scales.

*a*. Prosternum not separated from the episternum by a sutural groove.
*b*. Anterior pair of thighs strongly incrassate; epistome transverse.....13. *Piomera.*
*b b*. Anterior and posterior pairs of thighs both thickened and nearly equal, middle pair slender; epistome wedge-shaped.....14. *Metaxis.*
*b b b*. Anterior pair of thighs of normal size.
*c*. Apex of tibiæ simple .....15. *Leprotes.*
*c c*. Apex of one or both pairs of hinder tibiæ notched.
*d*. Scales more or less adpressed, flat, or only slightly curved; epistome transverse .....16. *Demotina.*
*d d*. Scales suberect, strongly curved; their apex produced into a slender thread-like process.
*e*. Episternum inflexed, its surface looking directly downwards .17. *Hemiplatys.*
*e e*. Episternum lateral .....18. *Apolepis.*
*a a*. Prosternum separated from the episternum by a deep groove.
*f*. Scales slender, of normal size .....19. *Lepina.*
*f f*. Scales large, longitudinally concave.....20. *Aulacolepis.*

Genus Adoxus, Kirby.

*Bromius*, Chevr., Redtenb.

*Body* oblong, subcylindrical, clothed above and beneath with adpressed hairs. *Head* moderately exserted, perpendicular; *antennæ* subfiliform, robust, first joint incrassate, second rather shorter than the first, subincrassate, ovate, the third equal in length to the second, the fourth somewhat longer; *eyes* subprominent, entire; terminal joint of *palpi* ovate; *mentum* with its anterior margin concave. *Thorax* subcylindrical, its lateral border entirely obsolete. *Elytra* much broader than the thorax, closely punctured. *Legs* stout; *thighs* moderately thickened, unarmed beneath; basal joint of *tarsi* scarcely shorter than the two following united; *claws* bifid. *Prosternum* transverse, its anterior margin separated from the episternum by a deep groove. *Mesosternum* transverse, its apex truncate or obsoletely concave.

Type, *Adoxus vitis*, Linn. Europe and North America.

The presence of the sutural groove between the prosternum and episternum at once separates this genus from all its congeners.

Two well-known species, *vitis* and *obscurus*, are natives of middle and southern Europe; the first is also found in Canada and the upper portion of the United States. A third species, undescribed, has been taken by Mr. A. Adams in Japan.

Genus Aoria, Baly.

*Body* oblong, subcylindrical, closely covered above and beneath with adpressed silky hairs. *Head* exserted, perpendicular; *antennæ* subfiliform, moderately robust, first joint incrassate, second nearly one half shorter than the first, ovate, third thickened towards the extremity, longer than the second, but shorter than the fourth; *eyes* entire, prominent; *mentum* with its anterior border deeply concave; terminal joints of *palpi* ovate, narrowed and acuminate towards the apex. *Thorax* subcylindrical, its lateral border entirely obsolete. *Elytra* much broader than the thorax, surface closely punctured, sometimes impressed with longitudinal striæ. *Legs* moderately robust; *thighs* subincrassate, unarmed beneath; basal joint of *tarsi* nearly equal in length to the following two united; *claws* bifid. *Prosternum* transverse, its anterior margin continuous with that of the episternum. *Mesosternum* transverse or transverse-quadrate, its apex bifurcate.

Type, *Aoria nigripes*, Baly, huj. op. i. p. 28 (*Adoxus*). China; Siam; and Malacca.

This genus closely resembles *Adoxus*; the absence of the sutural groove between the prosternum and its episternum will, without the least difficulty, separate the two. The species, three in number, are Asiatic; two have a wide range, being found in Malacca, Siam, and also China; the third has as yet been only sent from Siam.

Genus Stasimus, Baly.

*Body* oblong, subcylindrical, covered above with rigid suberect hairs, beneath with scale-like hairs. *Head* exserted, perpendicular, oblong; *antennæ* half the length of the body, first joint incrassate, second moderately incrassate, rather shorter than the first, third and three following each equal in length to the second, slender, seventh and succeeding joints moderately incrassate, the seventh pyriform, eighth, ninth, and tenth moniliform, the eleventh ovate: *eyes* entire; anterior edge of *mentum* angulate-emarginate; terminal joint of *maxillary palpi* lanceolate-ovate. *Thorax* gibbous in front, its lateral margin obsolete. *Elytra* deeply punctured, interspaces thickened and elevated here and there into irregular tubercles. *Legs* moderately robust; four anterior *thighs* armed beneath with a short tooth; basal joint of *tarsi* scarcely longer than the second; *claws* bifid. *Prosternum* subquadrate, dilated posteriorly; its anterior margin continuous with that of the episternum. *Mesosternum* subquadrate, its apex dilated, obtuse.

Type, *Stasimus rugosus*, Baly. Singapore.

*Stasimus* may be separated from all other allied forms by its gibbous thorax, tuberculate elytra, and peculiar antennæ. The single species forming the genus is a native of Singapore.

*Stasimus rugosus*, Baly.

*S.* oblong, subcylindrical, opake, fuscous; head rugose, closely covered with suberect paler hairs; thorax rugose, strongly gibbous in front; elytra deeply punctured, the puncturing arranged in irregular striæ, interspaces thickened and elevated at distant intervals into irregular wart-like tubercles, the largest of which is placed near the suture, just below the basilar space.—Long $2\frac{1}{2}$ lin.

*Hab.* Singapore. Collected by Mr. A. R. Wallace.

Epistome transverse, triangular, its surface rugose. Thorax rather broader than long, narrowing towards the apex, its lateral margin entirely obsolete, the anterior angle only indicated by an obtuse tooth; anterior half of disk occupied by a strongly raised gibbosity, behind which on either side is a broad but ill-defined oblique excavation; whole surface closely covered with suberect pale hairs. Elytra less closely but more deeply punctured than the thorax, more sparingly clothed with hairs, the tubercles ill-defined, with the exception of one or two near the suture; shoulders prominent.

Genus Trichotheca, Baly.
Journ. of Entom. i. p. 26 (1860).

*Body* subelongate, clothed above and beneath with suberect hairs; *antennæ* nearly equal in length to the body, filiform, scarcely thickened towards their apex, first joint incrassate, second shorter, ovate, third and following two slender filiform, elongate, nearly equal, the third and

fifth, however, being each somewhat shorter than the fourth, the sixth and seventh each also rather shorter than the fifth, equal, the eighth and following joints again shorter, nearly equal, the eleventh acute, six terminal joints slightly thickened; anterior edge of labrum emarginate. *Eyes* prominent, their inner margin obsoletely sinuate; *mentum* with its anterior border angularly notched; terminal joint of *palpi* ovate, attenuated towards the apex. *Thorax* subcylindrical, side margin obsolete, sides narrowed at base and apex, causing the middle portion to form an ill-defined angle. *Legs* subelongate; anterior pair of *thighs* strongly incrassate and flattened, armed beneath with a stout tooth, the two hinder pairs less thickened, also armed beneath with a smaller tooth.

Type, *Trichotheca hirta*, Baly (huj. op. i. p. 26). Northern India.

The slender filiform antennæ and the peculiar form of the anterior thighs, together with the silky pubescence, separate this genus from all others.

### Genus Xanthonia, Baly.

*Body* oblong, subcylindrical, covered with fine hairs or hair-like scales. *Head* exserted, perpendicular; *antennæ* rather more than half the length of the body, slender, subfiliform, first joint incrassate, second moderately thickened, shorter than the first, third and three following nearly equal, slender, each longer than the basal one, remaining joints scarcely shorter than the preceding, slightly thickened; *eyes* entire; *mentum* with its anterior margin concave; terminal joint of *maxillary palpi* ovate-acuminate; *epistome* often not separated from the face by a sutural line, its anterior margin truncate. *Thorax* subcylindrical, transverse, its upper surface slightly flattened, the lateral border obsolete. *Elytra* much broader than the thorax, their sides parallel, their surface closely punctured, the punctures generally arranged in striæ. *Legs* moderate; *thighs* slightly thickened, sometimes armed beneath with a small tooth; *tibiæ* simple; basal joint of *tarsi* shorter than the following two; *claws* bifid, the inner tooth incurved. *Prosternum* oblong-elongate, its anterior margin continuous with that of the episternum. *Mesosternum* oblong.

Type, *Xanthonia Stevensi*, Baly. Canada.

The shape of the thorax divides the present genus from *Neculla*, the nearest allied form.

Three species are known to me from North America, and one from Brazil.

#### *Xanthonia Stevensi*, Baly.

*X.* oblong, subcylindrical, fulvous, subnitidous, covered with fine concolorous hairs, eyes and apex of jaws black.—Long $1\frac{1}{2}$ lin.

*Hab.* Canada.

Head short, subrotundate, closely punctured; epistome concave, face impressed with a longitudinal groove. Thorax transverse, nearly twice as broad as long, sides regularly rotundate-ampliate; surface entirely

covered with large round shallow punctures, above somewhat flattened, slightly constricted in front, impressed on either side the disk with a large shallow fovea. Elytra much broader than the thorax, four times its length, sides parallel, apex regularly rounded, surface closely punctured, the punctures confused near the suture, arranged in striæ on the disk. Thighs unarmed.

### Genus Lypesthes, Baly.

*Body* subelongate, subcylindrical, clothed above and beneath with fine suberect lines. *Head* exserted, perpendicular; *antennæ* slender filiform, first joint incrassate, the second shorter than the third, five terminal joints slightly thicker than the preceding, with the exception of the first; *eyes* prominent, entire; *mentum* with its anterior margin concave; apical joint of *palpi* ovate, attenuated towards the apex, the latter obtuse. *Thorax* subcylindrical, lateral margin obsolete. *Elytra* broader than the thorax, sides parallel, upper surface coarsely punctured. *Legs* slender, subelongate; *thighs* moderately incrassate, armed beneath with a stout tooth; *claws* bifid. *Prosternum* subelongate, its anterior margin continuous with that of the *episternum*, the latter ill-defined, wedge-shaped. *Mesosternum* oblong.

The type of this genus is *Fidia atra*, Motsch., from Japan; it has also been found in Northern China by Fortune. I know only one species belonging to the genus.

In form, and in the possession of long slender antennæ, *Lypesthes* closely resembles *Fidia* and *Leprotes*; from the former of these it is distinguished by its toothed thighs, from the latter by the nature of its pubescence.

### Genus Neculla, Baly.

*Body* oblong, subcylindrical, clothed above and beneath with subdepressed scale-like hairs. *Head* exserted, perpendicular; *antennæ* moderately robust, subfiliform, first joint incrassate, second obovate, equal in length to the third, the latter shorter than the fourth; *eyes* prominent, entire; *mentum* with its anterior margin deeply concave; terminal joint of *palpi* ovate, attenuate towards the apex. *Thorax* subcylindrical; side margin obsolete in front, indicated on the hinder half by a faint ridge. *Elytra* much broader than the thorax, coarsely punctured. *Legs* stout; *thighs* moderately incrassate, armed beneath by a short stout tooth; basal joint of *tarsi* much shorter than the two following united; *claws* bifid. *Prosternum* subelongate, gradually increasing in width posteriorly; its anterior margin continuous with that of the episternum. *Mesosternum* quadrate-oblong, its apex obtusely angled.

Type, *Neculla pollinaria*, Baly, huj. op. i. p. 28 (*Adoxus*). India.

In form this genus closely resembles *Aoria*, from which the

toothed thighs and oblong mesosternum separate it without difficulty. The single species was sent to me, from Bombay, by Dr. Ezra Downes.

Genus Fidia, Dej.

*Body* subelongate or elongate, subcylindrical, covered above and beneath with fine suberect or depressed hairs, mingled occasionally with rows of narrow scale-like hairs. *Head* exserted, perpendicular; *antennæ* slender filiform, slightly thickened at their apex, first joint incrassate, second short, ovate, subincrassate, three following joints each about twice the length of the second, nearly equal, filiform, five terminal joints sometimes slightly thickened; *eyes* prominent, entire; *mentum* with its anterior margin broadly concave; terminal joint of *palpi* ovate, attenuate towards the apex, the latter acute. *Thorax* cylindrical, lateral border obsolete. *Elytra* much broader than the thorax, punctate-striate. *Legs* slender, subelongate; *thighs* moderately thickened, unarmed beneath; apex of front pair of *tibiæ* straight, basal joint of *tarsi* shorter than, or equal to, the two following united; *claws* bifid, the inner tooth much shorter than the outer one. *Prosternum* oblong-quadrate or oblong-elongate, its anterior margin continuous with the episternum. *Mesosternum* transverse, quadrate or oblong-quadrate, its apex truncate.

Type, *Fidia lurida*, Dej.

The long slender legs, with unarmed thighs, divide this genus from its allies with entire eyes, the latter character separating it from *Habrophora*.

Two species, one from the United States, the other from Mexico, are known to me.

Genus Aulexis, Baly.

*Body* elongate, subcylindrical, clothed above and beneath with suberect hairs. *Head* exserted, face perpendicular; anterior margin of *epistome* furnished with two acute flattened teeth, which partially cover the upper surface of the labrum; *antennæ* subfiliform, clothed with coarse hairs, basal joint incrassate, second half the length of the first, subincrassate, third shorter than the fourth, which joint is rather longer than the first, the following joints each rather shorter than the fourth, subequal; *eyes* prominent, ovate, their inner margin slightly sinuate; anterior margin of *mentum* concave; terminal joint of *palpi* slender, ovate. *Thorax* subcylindrical in front, flattened and more or less transversely excavated on the hinder half of the disk, lateral border obsolete, rarely visible at the base, its place supplied in the middle by three or four acute teeth. *Elytra* rather broader than the thorax, their sides parallel. *Legs* moderate, stout; *thighs* subincrassate, unarmed beneath; basal joint of *tarsi* shorter than the following two; *claws* toothed at the base. *Prosternum* narrow elongate, its anterior margin

continuous with that of the episternum. *Mesosternum* narrow, its apex dilated, trilobate.

Type, *Aulexis nigricollis*, Baly. Borneo.

This genus appears at first sight one of the most aberrant in the tribe, the peculiar form of the thorax giving it quite a different facies to the other genera; it agrees, however, in all its essential characters, the only exception being the toothed claws.

*Aulexis nigricollis*, Baly.

*A.* elongate, parallel, rufo-fuscous, subnitidous, covered with long silky subdepressed fulvous hairs; thorax and upper portion of head black, sides of the former armed with three acute teeth; antennæ and legs fulvous.—Long $2\frac{1}{2}$ lin.

*Hab.* Sarawak; Borneo.

Head triangular, lower portion of face rufo-fuscous, sutural line dividing the face from the epistome obsolete, the epistome itself excavated on either side, the depressed portions being deeply punctured and separated by a raised longitudinal ridge; upper portion of head deeply punctured; antennæ slender, more than two-thirds the length of the body. Thorax subquadrate, its anterior edge rufo-fuscous, its surface deeply and somewhat closely punctured, the transverse excavation on the hinder disk forming the segment of a circle. Elytra broader than the thorax, three times its length, sides parallel, their surface irregularly punctured, the punctures being more crowded than on the thorax.

Genus Brevicolaspis, Laporte.

*Body* oblong-elongate, subcylindrical, covered with adpressed scale-like hairs. *Head* exserted, perpendicular; *antennæ* equal to or longer than the body, filiform, moderately robust, basal joint incrassate, second short, three or four following equal, each rather longer than the first, the rest somewhat shorter, nearly equal, slightly thickened; *eyes* reniform, slightly prominent; *epistome* not separated from the face by a sutural line, its anterior margin produced, deeply notched, and forming two flattened acute teeth; *mentum* with its anterior margin concave; apical joint of *maxillary palpi* lanceolate. *Thorax* subcylindrical above, sides rounded, narrowed towards the apex, lateral border indicated by a distinctly raised line. *Elytra* broader than the thorax, parallel, their apex broadly rounded, their surface irregularly punctured. *Legs* robust; *thighs* moderately thickened, anterior pair thicker than the rest, all armed beneath with a strong tooth; *tibiæ* curved inwards, anterior pair thickened towards the apex, intermediate pair with their apex deeply notched; *claws* bifid. *Prosternum* oblong-quadrate, its anterior margin continuous with that of the episternum. *Mesosternum* subquadrate.

Type, *Brevicolaspis pilosa*, Laporte. Brazil.

This genus has so many distinctive characters that it cannot possibly be confounded with *Nephrella*, the only other possessing reniform eyes.

The species are all natives of Brazil.

### Genus Nephrella, Baly.

*Body* elongate, subcylindrical, covered above and beneath with coarse adpressed hairs. *Head* exserted, perpendicular; *antennæ* moderately robust, subfiliform, first joint incrassate, second shorter than the first, subincrassate, third half as long again as the second, fourth and two following each rather longer than the third, equal, seventh to the eleventh shorter, subequal; *eyes* large, elongate, reniform, subprominent; *mentum* with its anterior margin concave; terminal joint of *maxillary palpi* ovate, of the *labial* lanceolate. *Thorax* subcylindrical, lateral border obsolete. *Elytra* broader than the thorax, parallel, closely punctured. *Legs* short, moderately robust; *thighs* subincrassate, unarmed beneath; the hinder pair much shorter than the abdomen; basal joint of *tarsi* rather shorter than the two following united; *claws* bifid. *Prosternum* narrow, elongate, its anterior margin continuous with that of the episternum. *Mesosternum* subelongate, its apical half dilated, the apex itself truncate.

Type, *Nephrella elongata*, Baly. Ceylon.

The narrow elongate body, conjoined with the reniform eyes, serve to distinguish *Nephrella* from its congeners. The genus only contains a single species, peculiar to Ceylon.

### *Nephrella elongata*, Baly.

*N.* elongate, parallel, subcylindrical, dark fuscous, subnitidous, clothed with coarse bright fulvous hairs; stomata, abdomen and legs fulvous, tibiæ piceous; antennæ black, their base fulvous; breast and base of abdomen pale piceous.—Long $2\frac{3}{4}$ lin.

*Hab.* Ceylon.

Head and thorax closely covered with coarse adpressed hairs; thorax cylindrical, rather broader than long, its sides nearly straight, surface not very deeply punctured. Elytra finely punctured, their surface indistinctly wrinkled, clothed with similar hairs to those of the head and thorax. Abdomen more sparingly covered with hairs than the rest of the body.

### Genus Habrophora, Erichs.

Consp. Faun. Peruv. p. 163.

*Body* elongate or subelongate, subcylindrical, clothed above and beneath with adpressed hairs. *Head* strongly exserted, face perpendicular; *antennæ* slender, filiform, nearly equal to the body in length, first joint

incrassate, second short, third twice the length of the first, slender, filiform, fourth to the seventh each nearly equal in size and length to the third, the eighth to the tenth shorter, equal or slightly decreasing in length, the eleventh still shorter, ovate-acute; *eyes* prominent, their inner edge distinctly emarginate; *mentum* with its anterior margin broadly concave; terminal joint of *palpi* lanceolate. *Thorax* subcylindrical, somewhat flattened above, lateral border marked by an indistinct ridge, which is entirely obsolete in front. *Elytra* broader than the thorax, sides parallel, their upper surface, together with that of the thorax and scutellum, very closely covered with adpressed hairs. *Legs* slender, elongate; *thighs* very slightly thickened, unarmed beneath; apex of front pair of *tibiæ* straight; basal joint of *tarsi* in the two anterior pair of legs shorter than the following two joints united, in the hinder pair nearly equal in length to the three remaining joints. *Prosternum* narrow, elongate, its basal end dilated, anterior margin continuous with that of the episternum. *Mesosternum* nearly oblong, its apex obtusely rounded.

Type, *Habrophora lateralis*, Erichs. Peru.

The notched eyes at once separate the *Habrophora* from *Fidia*, the only genus with which it can be confounded; the typical species is a native of Peru. Mr. Bates has brought four or five others (all undescribed) from the Upper Amazons.

### Genus Piomera, Baly.

*Body* elongate, subcylindrical, clothed above and on the legs with adpressed scales. *Head* exserted, perpendicular; *antennæ* slender, subfiliform, basal joint incrassate, second short, ovate, subincrassate, third and remaining joints subequal, each rather longer than the basal one, the third and following three joints slender, filiform, the rest slightly thickened; *eyes* very prominent, rotundate, entire; *epistome* raised, short, transverse; *mentum* angularly notched; terminal joint of *palpi* ovate. *Thorax* subcylindrical, its lateral border obsolete. *Elytra* much broader than the thorax, sides parallel, surface deeply punctate-striate. *Legs* stout; anterior *thighs* very strongly, the others moderately incrassate, all armed beneath with a stout tooth; anterior *tibiæ* thickened near the apex; basal joint of *tarsi* rather shorter than the two following united; *claws* bifid, the inner tooth much shorter than the other. *Prosternum* oblong, its anterior margin continuous with that of the episternum. *Mesosternum* transverse quadrate, its apex obtuse. *Body* beneath nearly glabrous.

Type, *Piomera brachialis*, Baly. Borneo.

The very large anterior thighs form a good character to distinguish *Piomera* from the other scaly genera; the short transverse epistome separates it from *Metaxis*. The genus contains only a single species.

*Piomera brachialis*, Baly.

*P.* elongate, subcylindrical, fulvous, subnitidous, covered with pale fulvous curved adpressed scales; thorax rugose-punctate; elytra deeply punctate-striate, scales on their surface arranged in irregular patches.—Long $1\frac{1}{2}$ lin.

*Hab.* Borneo. Collected by Mr. Wallace.

Head short, triangular, upper portion of face and vertex covered with adpressed scales; antennæ two-thirds the length of the body, pale fulvous, their outer half fuscous. Thorax rather longer than broad, cylindrical, narrowed at base and apex, middle portion above thickened. Elytra oblong, much broader than the thorax, sides parallel, apex regularly rounded, surface closely and deeply punctured, the punctures arranged in irregular striæ, interspaces on the outer disk subcostate. Anterior thighs greatly swollen, inner edge of anterior tibiæ obliquely cut towards their apex.

Genus Metaxis, Baly.

*Body* oblong, subcylindrical, clothed above with regular scales, intermixed on the elytra with short rigid erect hairs. *Head* moderately exserted, perpendicular; *antennæ* slender, filiform, nearly equal to the body in length, first joint incrassate, second very short, moderately thickened, third slender, equal in length to the two preceding united, the rest each nearly equal in length to the third, the four or five terminal joints being very slightly shorter and thickened; *eyes* entire, prominent; *epistome* triangular, wedge-shaped; *mentum* angulate-emarginate; terminal joint of *maxillary palpi* narrow, lanceolate-ovate. *Thorax* subcylindrical, its lateral border obsolete. *Elytra* much broader than the thorax, deeply punctate-striate, surface covered with regular adpressed scales, mingled with which are a few rigid erect hairs. *Legs* moderate in length; *thighs* toothed beneath, incrassate, the intermediate pair being much less thickened than the first and third, which are nearly equal; intermediate pair of *tibiæ* notched at their apex; *claws* bifid. *Prosternum* elongate, broad, somewhat wedge-shaped, its anterior margin continuous with that of the episternum. *Mesosternum* oblong.

Type, *Metaxis sellata*, Baly. Borneo.

This genus is distinguished from *Piomera* by the form of its epistome, and also by its mesofemora—these latter, although somewhat thickened, being more slender than either the pro- or meta-femora, which are nearly equal in size.

*Metaxis sellata*, Baly.

*M.* oblong, subcylindrical, fulvo-fuscous, closely covered with concolorous scales, apex of antennæ and an oblong patch on the elytra, extending

from their base for half their length, dark fuscous; eyes black.—Long. $1\frac{3}{4}$ lin.

*Hab.* Sarawak; Borneo. Collected by Mr. Wallace.

Head closely punctured, and covered with adpressed scales; jaws dark fuscous. Thorax scarcely broader than long, somewhat flattened above, closely covered with scales, sides slightly rounded, narrowed in front, lateral border obsolete, all the angles armed with a short obtuse tooth. Elytra much broader than the thorax, nearly three times its length, their sides parallel; surface deeply punctate-striate, closely covered with scales, which are arranged in small irregular patches; intermingled with the scales are a few erect rigid fuscous hairs; piceous space more sparingly clothed with scales, which are concolorous with the patch itself.

### Genus Leprotes, Baly.

*Body* elongate, subcylindrical, clothed above and beneath with adpressed scales. *Head* exserted, perpendicular; *antennæ* filiform, scarcely thickened at their extremity, basal joint incrassate, the second shorter than the first, subincrassate, third and four following joints each nearly twice the length of the second, equal, eighth to the eleventh each rather shorter than the preceding, subequal; *eyes* prominent, entire; *mentum* with its anterior border feebly excavated, concave; terminal joint of *maxillary palpi* ovate, attenuated towards the apex, the same joint in the *labial palpi* more slender, also ovate. *Thorax* subcylindrical, its lateral border obsolete. *Elytra* much broader than the thorax, sides parallel, surface deeply punctured, covered with adpressed scales, sparingly mingled with which are a few rigid erect hairs. *Legs* subelongate; *thighs* moderately thickened, armed beneath with a stout tooth; basal joint of *tarsi* rather shorter than the following two united; *claws* bifid. *Prosternum* narrowly oblong, its anterior margin continuous with that of the epimera. *Mesosternum* quadrate oblong, its apex obtuse.

Type, *Leprotes gracilicornis*, Baly, huj. op. i. p. 285 (*Adoxus*). Hongkong.

The slender legs, simple tibiæ, regularly cylindrical thorax, without trace of raised lateral border, the flattened scales, and long slender filiform antennæ—these characters taken together distinguish the genus from all congeneric forms.

I know only a single species, from Hongkong, brought to this country by Mr. Bowring.

### Genus Demotina, Baly.

*Body* oblong, subcylindrical, covered above and beneath with small adpressed scales. *Head* exserted, perpendicular; *antennæ* either slender and filiform, or rather more robust, subfiliform, basal joint ovate, incrassate, second shorter than the first, the rest somewhat variable, the four

or five terminal joints rather shorter and often slightly thickened; *eyes* prominent, entire; *mentum* emarginate; terminal joint of *palpi* ovate; *epistome* transverse, quadr- or pent-angulate. *Thorax* transversely convex, lateral border either obsolete or replaced by a single row of teeth. *Scutellum* semi-ovate. *Elytra* oblong, closely punctured. *Legs* moderate in length; *thighs* moderately thickened, armed with a tooth beneath; four hinder *tibiæ*, or often only the intermediate pair, notched at their apex; *claws* bifid. *Prosternum* oblong or oblong-quadrate, its anterior margin continuous with that of the episternum. *Mesosternum* oblong-quadrate.

Type, *Demotina Bowringii*, Baly. China; Hongkong.

The insects placed by me in the present genus divide themselves in two groups, viz. one in which the antennæ are slender and filiform, and a second where the same organs are somewhat shorter and more robust, being at the same time slightly thickened towards their extremity. The notched tibiæ separate the genus from *Leprotes*; the form of the scales, together with the wedge-shaped epistome, from *Apolepis*. The species have a wide range, from Japan to the Malay Archipelago, by far the greatest number being inhabitants of the latter, some of them being found in the Celebes and other islands to the east of Borneo.

*Demotina scutellata*, Baly.

*D.* oblong, subcylindrical; disk of thorax depressed, dark fuscous, subnitidous, covered with pale fulvous, narrowly ovate, adpressed scales; scutellum, sides of thorax beneath, and epipleuræ closely covered with white scales; antennæ slender, filiform, their apex piceous.—Long $2\frac{2}{3}$ lin.

*Hab.* Northern China.

Head triangular, rugose-punctate, covered with adpressed scales; labrum fulvous; eyes large, black. Thorax one-half broader at the base than long, flattened on the disk, rugose-punctate, covered on the head with adpressed scales, lateral border obsolete, sides rounded posteriorly, narrowed from their middle to the apex. Elytra deeply punctate-striate, covered with adpressed scales; scattered here and there over the disk of each elytron are five or six small patches of white scales.

*Demotina Bowringii*, Baly.

*D.* oblong, subcylindrical, fusco-fulvous, subnitidous, covered with adpressed pale fulvous scales; elytra deeply punctate-striate, each elytron with four or five small black spots, three or four of which form an oblique fascia on the disk; thorax (its front edge excepted) and breast piceous; eyes black; antennæ subfiliform.—Long $1\frac{1}{2}$ lin.

*Hab.* Hongkong. Collected by Mr. Bowring.

Epistome bright fulvous; face closely covered with adpressed fulvous

scales. Thorax rather broader than long, sides rounded, narrowed at base and apex, lateral border obsolete, its place occupied by a few nearly obsolete teeth; disk transversely flattened, forming an indistinct angle with the side portion of the thorax, closely punctured. Elytra broader than the thorax, nearly three times its length, sides parallel, surface deeply and closely punctured, the punctures arranged in striæ on the inner half near the suture, confused on the outer disk near the lateral border, interspaces irregularly raised and thickened.

### Genus Hemiplatys, Baly.

*Body* subelongate, subcylindrical, opake, covered above with long, strongly curved, suberect scales, the apical half of which is narrowed and thread-like. *Head* deeply buried in the thorax, perpendicular; *antennæ* subfiliform, shorter than half the body, basal joint incrassate, second shorter than the first, moderately incrassate, four following joints each rather shorter than the second, nearly equal both in size and length, the sixth alone being rather shorter than the preceding, seventh to the eleventh gradually but slightly increasing in thickness; *eyes* entire; *epistome* transverse, its hinder border forming the segment of a circle; *mentum* with its anterior margin concave; terminal joint of *maxillary palpi* slender, ovate, its apex attenuate. *Thorax* subcylindrical, the sides strongly deflexed, and produced in front downwards as far as the middle of the eyes, their hinder portion deeply excavated near the base to receive the profemora; front edge of disk produced anteriorly, and concealing the head from above. *Elytra* broader than the thorax, parallel, their surface irregular, deeply punctured. *Legs* robust; *thighs* armed beneath with a stout tooth; *claws* bifid. *Prosternum* transverse quadrate, its anterior margin continuous with that of the episternum; *episternum* wedge-shaped, strongly incurved, its surface horizontal, and forming nearly a right angle with the side of the thorax. *Mesosternum* transverse.

Type, *Hemiplatys Pascoei*, Baly. Cambodia.

*Hemiplatys* is separated from *Apolepis*, its nearest ally, by the peculiar position of the anterior episterna.

### *Hemiplatys Pascoei*, Baly.

*H.* subelongate, subcylindrical, opake, piceous, covered above with long, suberect, strongly curved scales; surface of thorax irregular, remotely punctured, the broader scales on the disk intermingled with slender hair-like scales; elytra deeply punctured, interspaces thickened and elevated, almost tuberculate on the sides; disk with five or six tufts of large, rigid, erect, black scales, the apices of which are, as usual, prolonged into a slender thread.—Long $1\frac{1}{2}$ lin.

*Hab.* Cambodia. Collected by the late M. Mouhot.

Epistome coarsely and closely punctured; forehead nearly smooth in the middle, the sides more closely punctured, its scales more slender

than those on the thorax; antennæ scarcely longer than the thorax, pale fuscous, their outer half piceous; eyes and jaws black, lower extremity of the latter produced, angular. Thorax as broad as long, the produced anterior edge (when viewed laterally) appearing to form a hood to the head. Body beneath subnitidous, the scales narrower than on the upper surface, those on the breast and abdomen less erect and very slender.

Genus Apolepis, Baly.

*Body* oblong, subcylindrical, covered with stout, suberect, strongly curved scales similar in form to those in *Apolepis*. *Head* perpendicular, nearly buried in the thorax; *epistome* wedge-shaped; *antennæ* subfiliform, basal joint incrassate, second moderately thickened, equal in length to the first, third scarcely equal to the second, slender, all the others up to the tenth nearly equal in length to the second, the eleventh rather longer, all from the seventh upwards thickened; *eyes* rotundate, entire, prominent, surrounded by a narrow orbital groove; *mentum* with its anterior edge angulate; terminal joint of *maxillary palpi* ovate, attenuate towards the apex. *Thorax* subcylindrical, somewhat more convex above, sides rounded, side margin replaced by a single row of fine teeth. *Elytra* deeply punctate-striate, covered with similar scales to those of the rest of the body, here, however, arranged in parallel longitudinal rows. *Legs* moderately robust; *thighs* armed beneath with a short tooth; *anterior tibiæ* slightly incurved, *intermediate pair* notched at their apex; basal joint of *tarsi* equal in length to the second; *claws* bifid. *Prosternum* transverse, its anterior edge continuous with that of the episternum, the *episternum* itself produced in front. *Mesosternum* transverse quadrate, its apex obtusely angled.

Type, *Apolepis Wallacei*, Baly. Borneo.

The only genus with which *Apolepis* can be confounded is *Demotina*; from this the wedge-shaped epistome and strongly curved scales will divide it.

The only species known to me was sent from Borneo by Mr. Wallace.

*Apolepis aspera*, Baly.

*A.* oblong, subcylindrical, piceous, subnitidous, covered with suberect, strongly curved, concolorous scales.—Long 1½ lin.

*Hab.* Borneo (Sarawak).

Head closely covered with scales. Thorax coarsely punctured. Elytra punctate-striate, the interspaces somewhat thickened.

Genus Lepina, Baly.

*Body* oblong, subcylindrical, clothed with narrow curved scales. *Head* short, deeply immersed in the thorax, perpendicular; *mouth* concealed by the anterior edge of the prosternum; *antennæ* subfiliform, five terminal joints thickened, first and second joints nearly equal in length,

the former strongly, the latter moderately incrassate, the second and two following nearly equal, moderately slender, the seventh equal in length to the sixth, obconic, the next three submoniliform, the eleventh as long as the seventh, ovate; *epistome* wedge-shaped; *eyes* entire. *Thorax* broader than long, subcylindrical above, side margin distinct; surface of disk covered with curved scales. *Elytra* punctate-striate, surface covered with subdepressed scales, arranged, as in *Apolepis*, in parallel rows. *Legs* moderately robust; *hinder thighs* armed beneath with a small tooth; basal joint of *tarsi* scarcely longer than the second; *claws* bifid. *Prosternum* subelongate, separated from the episternum by a broad sutural groove, its front edge somewhat produced and concealing the mouth. *Mesosternum* subquadrate, its apex slightly dilated, trilobate.

Type, *Lepina inconspicua*, Baly. Pulo Penang.

This genus is also found in Sumatra. The form of the scales at once divides *Lepina* from *Aulacolepis*; in habit it agrees closely with *Apolepis*, but the sutural groove between the prosternum and the episternum separates it from that genus.

*Lepina inconspicua*, Baly.

*L.* oblong, subcylindrical, rufo-piceous, subnitidous, covered with suberect, narrow, curved scales; thorax (its anterior border excepted), base of thighs, knees, and outer half of antennæ dark nigro-piceous.—Long $1\frac{1}{2}$ lin.

*Hab.* Pulo Penang. Collected by Mr. Bowring.

This insect bears a strong resemblance to *Apolepis aspera*; in addition, however, to the structural characters, the scales covering its surface are much narrower, less rigid, and less erect, those on the thorax being almost adpressed. Thorax coarsely punctured. Elytra punctate-striate near the suture, puncturing confused on the disk, scales arranged as in *Apolepis*.

Genus Aulacolepis.

*Body* oblong, subcylindrical, clothed with large, broad, rigid, adpressed or suberect curved scales, surface of the scales longitudinally concave. *Head* short, perpendicular, more deeply immersed in the thorax than in the other genera of the group; *antennæ* scarcely longer than the head and thorax, their basal half slender, their outer portion moderately incrassate, basal joint thickened, second moderately thickened, two-thirds the length of the first, third and three following joints each about equal in length to the first, each slightly decreasing in length, also slightly thickened at their apex, four following joints moderately thickened, nearly equal, submoniliform, the eleventh rather longer, ovate; *eyes* entire; *mentum* angulate-emarginate; last joint of *maxillary palpi*

ovate. *Thorax* transverse, subcylindrical in front, gibbous and strongly tuberculate on the disk, lateral border distinct and strongly produced, its outer edge sometimes minutely toothed. *Elytra* much broader than the thorax, their sides subparallel, indistinctly narrowed behind, their surface rugose-punctate, covered with adpressed curved scales, intermixed with which are tufts of suberect similar scales. *Legs* robust; *thighs* armed beneath with a short stout tooth; *tibiæ* curved; *claws* bifid. *Prosternum* transverse quadrate, separated from the episternum by a deep groove; *episternum* scapulariform. *Mesosternum* short, transverse, its apex concave.

Type, *Aulacolepis Mouhoti*, Baly. Siam.

A second species is found in Sumatra. This genus is strikingly different in habit from the rest of the tribe, and, with the strongly produced lateral border of its thorax, appears at first sight to belong to a different group; in all its other characters, however, it agrees so closely with the *Adoxinæ* that I have retained it amongst them, considering it as a transition form, and placing it at the end of the other genera.

*Aulacolepis Mouhoti*, Baly.

*A.* broadly oblong, subcylindrical, black, subnitidous, closely covered with large, curved, concave, fulvo-fuscous scales; disk of thorax elevated into two large parallel conical tubercles; intermixed with the fulvo-fuscous scales on the elytra are (more particularly towards their apex) small patches of numerous black or white similar scales; each elytron is also furnished on the disk with about seven tufts of rigid, erect, black scales. —Long 3 lin.

*Hab.* Siam. Collected by the late M. Mouhot.

Head short, subrotundate; antennæ scarcely exceeding the thorax in length, fusco-fulvous. Thorax a third broader than long, the posterior four-fifths of the lateral border strongly produced, the anterior fifth ill-defined, the outer edge armed with minute teeth; surface of disk deeply punctured, two small patches of scales on the anterior border, together with a somewhat longer patch immediately behind each of the conical protuberances on the disk, black. Elytra deeply punctured.

[To be continued.]

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XIV.—*Catalogue of* Halticidæ; *being a continuation of the British Museum Catalogue*, Part i. 1860. By the Rev. Hamlet Clark, M.A., F.L.S.

A mere dry list of names seems but meagre fare to offer to the readers of the 'Journal of Entomology,' especially if the subject is one which hitherto has attracted, alas! but little attention, and the names themselves are for the most part MS. Let me explain,

therefore, to its subscribers that the following Catalogue was printed for me by Messrs. Taylor and Francis for private distribution among my correspondents, who had liberally entrusted to me their collections of the group for examination: the present Number of the Journal was at that time going to press, and so it was suggested that, inasmuch as the type was already set up, no expense would be incurred, and perchance benefit might accrue, if the list were to appear as one of the contributions. Certainly, for my part, if by means of greater publicity further aid should be rendered in the completion of the work, I shall be very grateful.

The subject of the list is a continuation of those sections of Halticidæ formed by Illiger (Mag. für Insekt. 1807, p. 82) which have the posterior claw globularly inflated, and for which he proposed the names of *Physapodes* and *Œdipodes*. It was at first my intention to have terminated my Catalogue for the British Museum with the genus *Œdionychis*, this group being separated from others which follow by its generally more rounded and less parallel form and its more completely globular inflation of the posterior claw. I find, however, that though this obtains for the most part, there are some species (a few), in my own collection and in that of Mr. Baly, which, in both these respects, are connecting links between the two genera *Œdionychis* and *Omophoita*, Dej. Cat. (this latter being, so far as I can discern, identical with *Ptena*, Dej. Cat.). The genus *Omophoita* is, therefore, included in the proposed continuation of the monograph, which will thus include all species, not only with a globular, but with a more than usually dilated apical claw.

The peculiar difficulty of the group (which has occupied me for nearly two years) consists in the marvellous tendency to variation which so many of the species exhibit; and this difficulty, instead of being diminished, has been enormously increased by the liberality of my friends, from whose cabinets I have received several thousand specimens for comparison. If the material had consisted only of 100 specimens, these 100 might readily have been resolved into apparently good and well-separated species; but inasmuch as an abundance of materials has supplied many examples which must be dealt with as connecting links between insects differing evidently one from the other, not only has the difficulty of the subject been increased, but it has become probable that other individuals, yet to be examined, may bring together as one species examples which at present ought to be considered distinct: however, be this as it may, I shall be very glad to examine and name any representatives of the group that may be entrusted to me; especially shall I be thankful for the

loan of *authenticated* examples of species described by authors, of which no mention is made in these pages.

I should state that the list has been printed simply as constituting the shortest mode of naming the different collections of my friends, before they are returned to them. Unfortunately Dr. Gray is not able to proceed with the publication of the second part of the Catalogue so soon as was anticipated; nothing remained for me, therefore, but to return without further delay the collections in my charge.

LEIOPOMIS (*Dej. Cat.*).
1 crocea, *Clark, MS.* Cayenne.

CYRTOMA, *Clark, MS.*
1 apicale, *Clark, MS.* Madagascar.
4-maculata, *Chevr., MS.*
Madecassæ, *Chevr., MS.*

PHYSOMA, *Clark, MS.*
1 Africana, *Dej. Cat.* Sennaar.
brevicornis, *Chevr., MS.*
2 rugicollis, *Clark, MS.* Old Calab.
3 erythroptera, *Clk., MS.* Madagasc.

ŒDIRHOPALA, *Clark, MS.*
1 sphærulata, *Clark, MS.* Borneo.
2 circularis, *Clark, MS.* India.
3 ruficollis, *Clark, MS.* Borneo.
4 brevicollis, *Dej., MS.* Java.
flaveola, *Chevr., MS.*

ŒDIONYCHIS, *Latr.*
[* Antennæ short, moniliform.]
1 moniliformis, *Clk., MS.* Arct. Amer.
[** Antennæ incrassated.]
2 clavicornis, *Clark, MS.* Braz.
3 Miersii, *Clark, MS.* Braz.
[*** Antennæ simple.]

**A. Elytra unicolorous for the most part.**

† *Elytra green.*
4 circumcincta, *Dej. Cat.* Braz.

†† *Elytra flavous or fusco-flavous.*
5 solstitialis, *Clark, MS.* Amaz.
6 marginelineata, *Clk., MS.* Napo.
7 5-punctata, *Chevr., MS.* Braz.
numerata, *Chevr., MS.*
varicolor, *Chevr., MS.*
opima, var., *Chevr., MS.*
xanthura, *Dej., MS.*
8 opima, *Germ.* Braz.
punctatissima, *Dej. Cat.*
sordida, *Mann, MS.*
9 humilior, *Clark, MS.* Braz.
10 macropus, *Ill.* Braz.
deleta, *Dej. Cat.*
liberta, *Chevr., MS.*
homostigma, *Chevr., MS.*
vagepunctata, *MS.*
scutellata, *Chevr., MS.*
pallidula, *MS.*
11 humeralis, *Ill.* Braz.
nigrella, *Baly.*
basicornis, *Chevr., MS.* (?)
rosea, *Dej. Cat.*
rhodina, *Chevr., MS.*
albida, *Dej. Cat.*
subfasciata, *Chevr., MS.* (?)
12 angusticollis, *Clark, MS.* Braz.
millepora, *Chevr., MS.* (?)
13 consimilis, *Chevr., MS.* Columb.
mula, *Chevr., MS.*
albilabris, *Dej.*
14 navicularis, *Clark, MS.* Columb.
15 cognata, *Clark, MS.* Costa Rica.
16 Amazonia, *Clark, MS.* Amazon.
17 impura, *Boh.* Natal.
18 asperula, *Chevr., MS.* Braz.
deleta, var., *Dej., MS.*
19 glaucina, *Chevr., MS.* Cayenne.
20 mendax, *Clark, MS.* Amaz.
21 crassiformis, *Clk., MS.* Cayenne.
22 herbacea, *Clark, MS.* Braz.
23 atriventris, *Dej., MS.* Braz.
dispar, *Chevr., MS.*
amicta, *Chevr., MS.*

dichroa, *Chevr., MS.*
plebeia, *Klug, Dej. Cat., MS.*

24 albipennis, *Clark, MS.* Amaz.
25 tabida, *Deyr., MS.* Braz.
26 hypocrites, *Clark, MS.* Amaz.
27 extricata, *Clark, MS.* Amaz.
28 modica, *Clark, MS.* Mex.
29 nigronotata, *Clark, MS.* Braz.
30 picifrons, *Chevr., MS.* Braz.
31 pallens, *Clark, MS.* Braz.
livida, *Chevr., MS.*
pallida, *Deyr., MS.*
laticollis, *Dej., MS.*
32 maculicollis, *Clark, MS.* Texas.
signaticollis, *Deyr., MS.*
33 rubricollis, *Clark, MS.* S. Cath.
34 nigroscutellata, *Clk., MS.* S. Cath.
scutellata, *Chevr., MS.* (?)
35 cinctipennis, *Clark, MS.* N. Amer.
36 pallidipennis, *Clark, MS.* Braz.
ocularis, *Chevr., MS.*
37 corallina, *Chevr., MS.* Braz.
38 picicollis, *Clark, MS.* Columb.
pallidipennis, *Chevr., MS.*
39 nigripes, *Clark, MS.* S. Paul.
40 venustula, *Clark, MS.* Braz.
41 granularis, *Clark, MS.* Amaz.
42 declarata, *Clark, MS.*
43 parvula, *Chevr., MS.* S. Paul.
44 exsanguis, *Chevr., MS.* Cayenne.
45 pallescens, *Clark, MS.* Amaz.
46 croceipennis, *Clark, MS.* Teapa.
47 robusta, *Clark, MS.* Braz.
48 infima, *Clark, MS.* Amaz.
49 roseata, *Clark, MS.* Braz.
50 lucida, *Clark, MS.* Braz.
51 scutellata, *Chevr., MS.* Braz.
52 insignita, *Boh.* Braz.
53 Tejeucæ, *Clark, MS.* Braz.

††† *Elytra flavous, with slight markings of fuscous.*

54 nigrofasciata, *Clark, MS.* Mex.
humeralis, *Chevr., MS.*
55 turpis, *Clark, MS.* Amaz.
56 pauperata, *Clark, MS.* Amaz.
57 subfasciata, *Clark, MS.* Amaz.
58 minuta, *Clark, MS.* Braz.
59 longula, *Clark, MS.* S. Paul.
60 fuscata, *Chevr., MS.* Columb.
obliterata, *Chevr., MS.*

†††† *Elytra blue or bluish-black.*

61 indigosoma, *Chevr., MS.* Braz.
62 speciosissima, *Chevr., MS.* Mex.
63 Homboltii, *Chevr., MS.* Mex.
Silbermanni, *Chevr., MS.*
Hopfneri, *Dej., Chevr., MS.*
femoralis, *Dej., MS.*
64 perplexa, *Clark, MS.* Mex.
65 Alcio, *Chevr., MS.* Braz.
torquata, *Chevr., MS., Dej. Cat.*
ruficollis, *Dej. Cat.*
bipartita ♀, *MS.*
blanda ♂, *Dej. Cat.*
infamis, *Chevr.*, Mex. Cent. Ins.
66 Klugii, *Dej. Cat.* Mex.
flavicollis, *Klug, MS.*
femoralis, *Klug?, MS.*
abdominalis, *Chevr.*
67 amabilis, *Klug?* Mex.
68 procera, *Chevr., MS.* Mex.
69 Reichii, *Chevr., MS.* Mex.
70 caracollis, *Say.* Mex.
luteicollis, *Dej. Cat.*
cinctella, *Chevr., MS., Dej. Cat.*
71 erythrocyanea, *Chevr., MS.* Braz.
umbratica, *Deyr., MS.*
72 laticollis, *Clark, MS.* Braz.
73 cyanipennis, *Fab.* W. Ind.
74 bicolor, *Fab.* W. Ind.
75 hilaris, *Clark, MS.* ?
76 thoracica, *Fab., Oliv.* N. Amer.
scripticollis, *Say.*
abdominalis, *Chevr., nec Oliv., MS.*
agglomerata, *Chevr., MS.*
thoracica, var., *Chevr., MS.*
fasciatocollis, *Chevr., MS.*
discicollis, *Dej. Cat., MS.*
sobrina, *Chevr., MS., Dej. Cat.*
sapphiripennis, *Dej. Cat.*
77 incerta, *Clark, MS.* N. Orl.
scripticollis, *Dej., MS.*
78 cyanoptera, *Clark, MS.* N. Amer.
79 obscura, *Clark, MS.* Amaz.

80 parallina, *Clark, MS.* Mex.
81 abdominalis, *Oliv.* N. Amer.
vians, *Ill., Say.*
82 concinna, *Fab.* N. Amer.
83 pinguis, *Clark, MS.* Pennsylv.
dimidiata, *Chevr., MS.*
84 gibbitarsa, *Say, Lec.* N. Amer.
85 pocularis, *Clark, MS.* Mex.
86 gemina, *Clark, MS.* Carthagena.
87 servus, *Clark, MS.* Amaz.
88 difficilis, *Clark, MS.* Yucatan.

†††† *Elytra blue or blue-black, with slight markings of flavous.*

89 regina, *Clark, MS.* Amaz.
90 flaveola, *Clark, MS.* Braz.
91 princeps, *Clark, MS.* Columb.
lateralis, *Chevr., MS.*
terminata, *Buq., MS.*
92 bistrinotata, *Clark, MS.* Mex.
93 4-maculata, *Clark, MS.* Braz.
94 compta, *Clark, MS.* Braz.
cervicalis, *Schaum, MS.*
95 torquata, *Clark, MS.* Mex.
96 eburata, *Germ.* Mex.
97 verecunda, *Clark, MS.* Boliv.
98 cinctella, *Klug.* ?
speciosa, *Chevr., MS.*
99 Beskii, *Chevr., MS.* Venez.
croceicollis, *Schaum, MS.*
smaragdipennis, *Chevr., MS.*
100 cæca, *Chevr., MS.* Mex.
101 apicata, *Chevr., MS.* Braz.
alboguttata, *Dej., MS.*
4-notata, *Buq., MS.*
var. A. apicalis, *Dej. Cat.*
auricularis, *Chevr., MS.*
var. B. marginicollis, *Dej.*
cinctella, *Chevr., MS.*
102 decens, *Clark, MS.* Braz.
103 margineguttata, *Dej. Cat.* Braz.
104 funerea, *Clark, MS.* ?
105 quercata, *Fab.* N. Amer.
circumdata, *Rand.*
var. A. limbalis, *Melsh.*
106 soror, *Clark, MS.* Illinois.
107 exilis, *Clark, MS.* N. Amer.
108 Bohemanni, *Clark, MS.* ?
109 confluenta, *Clark, MS.* Braz.
110 decolorata, *Clark, MS.* Amaz.
111 cauta, *Clark, MS.* Amaz.
112 boops, *Clark, MS.* Santarem.

**B. Elytra with longitudinal linear markings.**

† *Elytra dark-coloured, the linear markings being paler.*

113 lativittis, *Germ.* ? Braz.
flavovittata, *Chevr., MS.*
dimidiaticornis, *Chevr., MS.*
114 vittata, *Dej. Cat.* Braz.
115 adjuncta, *Clark, MS.* S. Paul.
116 anxia, *Clark, MS.* Braz.
circumflexa, *Chevr., MS.*
117 approximata, *Clk., MS.* U. States.
118 thermalis, *Clark, MS.* Florida.
119 arcuata, *Clark, MS.* Braz.
4-lineata, *Chevr., MS.*
120 obliquevittata, *Chevr., MS.* Braz.
circumvaga, *Chevr., MS., Dej. Cat.*
anxia, *Dej. Cat.*
121 Chabrillaci, *Chevr., MS.* Braz.
122 oblique-arcuata, *Clk., MS.* Braz.
123 Waterhousii, *Clark, MS.* Braz.
124 miniata, *Fab., Leconte.* Texas.
125 cruralis, *Clark, MS.* ?
126 bivittata, *Clark, MS.* Florida.
127 gibbitarsa, *Say.* N. Amer.
trigonalis, *Chevr., MS.* (?)
128 lætifica, *Boh.* M. Video.
latevittata, *Chevr., MS.*
hybrida, *Chevr., MS.*
129 osculans, *Clark, MS.* Cayenne?
8-vittata, *Chevr., MS.*
130 sublateralis, *Clark, MS.* Braz.
131 marginalis, *Clark, MS.* Braz. Int.
132 Magellanica, *Clk., MS.* Patagonia.
133 Nymphæ, *Clark, MS.* Braz.
134 grammica, *Chevr., MS.* Columb.
vittipennis, *Dej. Cat.*
135 petaurista, *Oliv., Ill.* N. Amer.
grammica, *Chevr., MS.*
vittipennis, *Dej. Cat.*
136 tetrachorda, *Chevr., MS.* Braz.
137 flavolineata, *Chevr., MS.* Braz.
bella, *Dej. Cat.*

138 brunneicollis, *Clark, MS.* Braz.
139 flavovittata, *Chevr., MS.* Valpar.
140 brevis, *Clark, MS.* Chili.
141 fluminensis, *Clark, MS.* Amaz.
142 Lebasii, *Clark, MS.* Columb.
143 misella, *Clark, MS.* Braz.
144 ovata, *Clark, MS.* Braz.

†† *Elytra pale-coloured, the longitudinal markings being darker.*

145 nigrovittata, *Boh.* M. Video.
pentagramma, *Chevr., MS.*
regulata, *Reiche, MS.*
146 8-vittata, *Clark, MS.* S. Paul.
geniculata, *Chevr., MS.*
147 4-vittata, *Baly.* Braz.
148 conformis, *Chevr., MS.* Braz.
149 rufovittata, *Chevr., MS.* Braz.
150 submarginata, *Baly.* Braz.
151 sublineata, *Chevr., MS.* Mex.
152 campestris, *Clark, MS.* Braz.
153 mediovittata, *Clark, MS.* Mex.
convexa, *Deyr., MS.*
virgata, *Chevr., MS.*
nigrifrons, *Chevr., MS.*
cæruleovittata, *Chevr., MS.*
var. A. 5-maculata, *Chevr., MS.*
154 umbratica, *Oliv.* Braz.
trivittata, *Baly.*
rufilinea, *Schaum, MS.*
evanescens, *Chevr., MS.*
strigata, *Dej. Cat., MS.*
155 convexa, *Chevr., MS.* M. Video.
156 crassa, *Chevr., MS.* Braz.
157 jocosa, *Clark, MS.* N. Amer.
158 egena, *Clark, MS.* Braz.
159 puella, *Clark, MS.* N. Amer.
160 consentanea, *Clark, MS.* Braz.
161 advena, *Clark, MS.* Rio.
162 irrorata, *Clark, MS.* Braz.
163 rufofemorata, *Clark, MS.* Braz.
164 grata, *Clark, MS.* Mex.
165 pulchra, *Clark, MS.* M. Video.
166 elocata, *Clark, MS.* Braz.

**C. Elytra with longitudinal linear markings broken by transverse markings.**

167 tessellata, *Clark, MS.* S. Cath.
168 figurata, *Chev., Guér. Ic. R. A.* Braz.
plagiata, *Chevr.*
var. A. interrupta, *Reiche, MS.*
169 angulosignata, *Clark, MS.* Braz.
hypocrites, *MS.*
170 venustior, *Clark, MS.* Braz.
171 separata, *Clark, MS.* Braz.
172 pallidesignata, *Clark, MS.* Braz.

**D. Elytra with transverse markings.**

173 4-fasciata, *Clark, MS.* Esp. Santo.
174 semifasciata, *Baly.* Braz.
fimbriata, *Dej., Chevr., MS.*
fasciata, *Chevr., MS.*
4-fasciata, *Chevr., Reiche, MS.*
var. A. semifasciata, *Baly.*
var. B. polyzona, *Chevr., MS.*
175 rufonotata, *Chevr., MS.* Braz.
decipiens, *Chevr., MS.*
176 tricruciata, *Germ.* Braz.
obsoleta, *Chevr., MS.*
ocellata, var., *Dej., MS.*
clathrata, *Dej. Cat.*
var. A. tricincta, *Germ.*
simillima, *Chevr., MS.*
ferrugineo-fasciata, *Chevr., MS.*
var. B. clathrata, var., *Chevr., MS.*
177 divisa, *Germ.* Braz.
areata, *Germ.*
Langsdorfii, *Dej. Cat.*
178 melanocephala, *Chevr., MS.* Braz.
patricia, *Dej. Cat.*
eburata, *nec Germ.*
fasciata, *Chevr., MS.*
179 ligata, *Chevr., MS.* Braz.
fasciolata, *Chevr., Dej. Cat.*
var. A. bifasciata, *Chevr., MS.*
semimarginata, *Chevr., MS.*
180 crux nigra, *Chevr., MS.* Braz.
semifasciata, *Chevr., MS.*
inclusa, *Dej., MS.*
181 Murrayii, *Clark, MS.* Braz.
182 scissa, *Germ.* Braz.
trifasciata, *Dej. Cat.*
ramosa, var., *Chevr., MS.*

Var. A. textata, *Chevr., MS.*
B. ramosa, *Chevr., MS.*
C. inclusa, *Chevr., MS.*
D. Para.
E. vinculata, *Chevr., MS.* S. Paul.
F. Braz.
G. ramosa, *Chevr., MS., Dej. Cat.* Braz.
H. Braz.
K. lepida, *Dej. Cat.* Braz.
L. zebra, *Chevr., MS.* Braz.
M. ambigua, *Chevr., MS.* Braz.
N. quagga, *Schaum, MS.* Braz.
O. clitellaria, *Chevr., MS.* Braz.
P. Braz.
Q. Braz.
R. Braz.
S. Braz.
T. Braz.
V. Braz.
W. Braz.
X. Braz.
Y. Braz.
Z. Braz.
AA. infamis, *Chevr., MS.* Braz.
ruficollis, *Dej.*, ♂, *MS.*
blanda, var., *Dej.*, ♀, *MS.*
Var. BB. Braz.
CC. Braz.
DD. ornaticollis, *Chevr., MS.* Braz.
EE. arcuata, *Chevr., MS.* Braz.
punctum, *Chevr., MS.*
FF. lineatocollis, *Chevr., MS.* Braz.
GG. punctum, *Chevr., MS.* Braz.
fasciata, *Deyr., MS.*

183 bitæniata, *Chevr., MS.* Braz.
Lacordairei, *Dej., MS.*
princeps, *Reiche, MS.*
phalerata, *Schaum, MS.*
184 Grayii, *Clark, MS.* Braz.
185 crucifera, *Dej. Cat.* Braz.
quadrina, *Chevr., MS.*
frenata, *Dej., MS.*
Var. A. frenata, *Chevr., MS.*
B.
C.
186 contaminata, *Clark, MS.* Mex.
187 frenata, *Clark, MS.* Amaz.
188 ornata, *Clark, MS.* Amaz.
189 blanda, *Dej., MS.* Braz.
bipartita, *Chevr., MS.*
torquata, *Chevr.*, ♀, *MS.*
Var. A. ruficollis, *Dej., MS.*
lyncea, *Chevr., MS.*
B.
C.
D. conspicillata, *Chevr., MS.*
E. tergosignata, *Chevr., MS.*
F. torquata, var., *Chevr., MS.* M. Video.
G. Braz.
190 Bonariensis, *Chevr., Dej. Cat.* B. Ayres.
191 interrupta, *Clark, MS.* Peru.
192 grossa, *Clark, MS.*
193 viridifasciata, *Buq., MS.* Columb.
viridicincta, *Chevr., MS.*
194 intersignata, *Chevr., MS.* Braz.
trabeata, *Schaum, MS.*
Var. A. falsa, *Chevr., Dej. Cat.*
nobilis, var., *Chevr., MS.*
mesoleuca, *Schaum, MS.*
B. consobrina, *Chevr., MS.*
porosa, *Chevr., MS.*
195 cardinalis, *Clark, MS.* Amaz.
196 ænea, *Clark, MS.* Amaz.
197 Cayennensis, *Clark, MS.* Cayenne.
198 beatula, *Clark, MS.* Amaz.
199 crucigera, *Clark, MS.* Amaz.
200 bifasciata, *Baly.* Amaz.
201 illustris, *Dej. Cat.* Cayenne.
202 Wallacei, *Clark, MS.* Amaz.
203 Lacordairei, *Clark, MS.* Amaz.
204 7-maculata, *Clark, MS.* Braz.

205 albicincta, *Schaum, MS.* Amaz.
206 oblonga, *Clark, MS.* Amaz.
207 numerata, *Clark, MS.* Amaz.
208 peregrina, *Clark, MS.* Amaz.
209 sejuncta, *Clark, MS.* Amaz.
210 decipiens, *Clark, MS.* Amaz.
211 pulchella, *Chevr., MS.* Columb.
abstersa, *Deyr., MS.*
ramosa, *Chevr., MS.*
Var. A. Columbica, *Chevr., MS.*
B. eburida, *Chevr., MS.*
212 formosa, *Clark, MS.* Braz.
213 submaculata, *Clark, MS.* Rio.
214 luteicollis, *Clark, MS.* Braz.
215 plebeia, *Clark, MS.* Upp. Amaz.
216 centurio, *Clark, MS.* Columb.
consularis, *Chevr., MS.*
ostrina, *Chevr., MS.*
217 fasciata, *Fab., Oliv.* W. Ind. Islds.
dimidiata, *Oliv.*
scutellaris, *Chevr., MS.*
Var. A. fasciata, *Fab.*
interrupta, *Chevr., MS.*
B. bicolor, *Fab.*
cincta, *Oliv., MS.*
Poeyi, *Chevr., MS.*
218 xanthomelas, *Chevr., MS.* Braz.
cincticollis, *Chevr., MS.*
cruciata, *Chevr., MS.*
eburata, *Chevr., MS.*
prolongata, *Chevr., MS.*
219 fallaciosa, *Chevr., MS.* Braz.
Var. A.
220 quadriplagiata, *Clark, MS.* Braz.
221 nitida, *Fab.* Braz.
monilis, *Germ.*
flavofasciata, *Chevr., MS.*
festiva, *Chevr., MS.*
Var. A. læta, *Chevr., MS.*
unifasciata, *Dej. Cat.*
setipes, *Chevr., MS.*
222 argutula, *Clark, MS.* Amaz.
223 dilecta, *Chevr., MS.* Braz.
unifasciata, *Chevr., MS.*
monilis, *Chevr., MS.*
224 metallescens, *Clark, MS.* Braz.
225 induta, *Clark, MS.* S. Amer.
226 mendica, *Clark, MS.* Para.
227 variolaris, *Clark, MS.* Braz.
zonulata, *Chevr., MS.*
228 pectoralis, *Clark, MS.* Cayenne.
229 nobilitata, *Fab., Oliv.* Braz.
albocruciata, *Dej., MS.* Cayenne.
cruciata, *Chevr., MS.* Braz.
230 nivosa, *Clark, MS.* La Guayra.
231 ambita, *Chevr., MS.* Cayenne.
Veneris, *Chevr., MS.*
nobilitata, var., *Chevr., MS.*
crucigera, *Reiche, MS.*
cruciata, *Dej., MS.*
232 discicollis, *Clark, MS.* Braz.
233 albosignata, *Clark, MS.* Columb.
234 combusta, *Clark, MS.* Rio.
235 sulphureonotata, *Clark, MS.* S. Cath.
236 terricolor, *Clark, MS.* Venez.
237 recta, *Chevr., MS.* Amaz.
deplexa, *Chevr., MS.*
Mellei, *Chevr., MS.*
interrupta, *Chevr., MS.*
bicruciata, var., *Dej., MS.*
238 bicruciata, *Dej. Cat.* Braz.
succincta, *Chevr., MS.*
239 æruginosa, *Clark, MS.* Braz.
240 contempta, *Chevr., MS.* Napo.
241 bistrifasciata, *Clk., MS.* Tapayos.
242 nigromaculata, *Reiche, MS.* Braz.
243 idonea, *Clark, MS.* Teapa.
244 biplagiata, *Deyr., MS.* S. Cath.
245 libentura, *Germ.* Braz.
tetraspilota, *Baly.*
collaris, *Chevr., MS.*
6-guttata, *Chevr., MS.*
6-spilota, *Chevr., MS.*
margineguttata, var., *Chevr., MS.*
246 auriculata, *Clark, MS.* Braz.
6-spilota, *Chevr., MS.*
247 viridiænea, *Clark, MS.* Braz.
248 faceta, *Dej. Cat.* Braz.
bifasciata, *Chevr., MS.*
249 felis, *Clark, MS.* S. Paul.
250 talpa, *Clark, MS.* Braz.
251 femorata, *Dej. Cat.* Braz.
consanguinea, *Chevr., MS.*

faceta, *Chevr., MS.*
cruciata, *Dej., Chevr., MS.*
252 quadricollis, *Chevr., MS.* Braz.
253 intermedia, *Clark, MS.* Braz.
254 coccineicollis, *Chevr., MS.* Braz.
rufifrons, *Chevr., MS.*
255 militaris, *Clark, MS.* Braz.
faceta, *Chevr., MS.*
256 cineracea, *Clark, MS.* Braz.
257 nimbata, *Chevr., MS.* Braz.
hypocrita, *Chevr., MS.*
faceta, var., *Chevr., MS.*
258 evanida, *Chevr., MS.* Braz.
faceta, var., *Dej., MS.*
259 frontalis, *Clark, MS.* Braz.
260 cervina, *Clark, MS.* Braz.
261 4-pustulata, *Clark, MS.* Braz.
262 abstersa, *Clark, MS.* Braz.
263 Schaumii, *Clark, MS.* Amaz.
264 mitis, *Clark, MS.* Braz.
265 selecta, *Clark, MS.* Braz.
266 gravida, *Clark, MS.* Braz.
267 pulchrior, *Clark, MS.* Amaz.
268 bella, *Baly.* Nauta.
269 6-signata, *Clark, MS.* Amaz.
270 astuta, *Clark, MS.* Columb.
271 trimaculata, *Clark, MS.* N. Granada.
272 Illigeri, *Chevr., MS.* Mexico.
nigripes, *Dej., MS.*
picifrons, *Chevr., MS.*
nigroscutellata, *Chevr., MS.*
consularis, var., *Chevr., MS.*
273 consularis, *Chevr., MS.* Bahia.
pallens, *Reiche, MS.*
274 Chevrolati, *Clark, MS.* Nicarag.
275 brunneo-signata, *Buq., MS.* Columb.
276 dispar, *Chevr.*, ♂, *MS.* Mex.
generosa, *Chevr., MS.*
amicta, *Chevr.*, ♀, *MS.*
4-maculata, *Dej., MS.*
persimilis, *Reiche, MS.*
277 labyrinthica, *Clark, MS.* Braz.
278 Balyi, *Clark, MS.* Amaz.
279 inscripta, *Chevr., MS.* Braz.
geniculata, *Chevr., MS.*
fusconotata, *Chevr., MS.*
6-maculata, *Dej. Cat.*
280 informis, *Clark, MS.* Braz.

**E. Elytra otherwise marked.**

281 12-notata, *Clark, MS.* Braz.
282 signaticollis, *Clark, MS.* Braz.
283 Batesii, *Baly.* Amaz.
284 fasciaticollis, *Clark, MS.* Braz.
285 inclusa, *Clark, MS.* Braz.
286 luctuosa, *Chevr., MS.* B. Ayres.
287 coccinelloides, *Clk., MS.* S. Cath.
288 nigricollis, *Chevr., MS.* Braz.
crassipennis, *Chevr., MS.*
signaticollis, *Deyr., MS.*
289 variata, *Chevr., MS.* Braz.
4-maculata, *Chevr., MS.*
signaticollis, *Chevr., Schaum, MS.*
crassipennis, *Chevr., MS.*
tricruciata, *nec Germ., MS.*
10-signata, *Chevr., MS.*
290 nigropunctata, *Clk., MS.* Braz.
291 semipunctata, *Clark, MS.* Braz.
292 10-guttata, *Oliv.* Braz.
Chevrolati, *Dej. Cat.*
globosa, *Chevr., MS.* Mex.
Yucatana, *Chevr., MS.* Yucatan.
Argus, *Chevr., MS.* Braz.
293 pupillata, *Chevr., MS.* Braz.
ocellata, *Chevr., MS.*
294 12-guttata, *Chevr., MS.* Braz.
ocellata, var., *Chevr., MS.*
omophoites, *Chevr., MS.*
flavomaculata, *Chevr., MS.*
295 Omophoites, *Clark, MS.* Venezuela.
296 prasina, *Clark, MS.* Braz.
297 Fryii, *Clark, MS.* Braz.
298 Deyrollii, *Clark, MS.* Braz.
299 ingrata, *Clark, MS.* S. Cath.
300 antiqua, *Clark, MS.* Braz.
301 calvata, *Clark, MS.* Braz.
sinuatovittata, *MS.* M. Video.
302 20-notata, *Chevr., MS.* R. Grande.
303 amanda, *Clark, MS.* Nicaragua.
304 subimpressa, *Clark, MS.* Braz.
305 obliterata, *Buq., MS.* Braz.
3-punctata, *Chevr., MS.*

4-maculata, *Chevr., MS.*
6-punctata, *Chevr., MS.*
6-maculata, *Chevr., MS.*
bistripunctata, *Chevr., MS.*

306 fuliginicollis, *Clark, MS.* Mex.
307 geniculata, *Clark, MS.* Braz.
308 rufovittata, *Chevr., MS.* Braz.
309 oculata, *Fab.* ?, *MS.* Amaz.
310 Dohrnii, *Clark, MS.* Braz.
311 biarcuata, *Chevr. Cent. Mex. Col.* Mex.
312 maculifrons, *Chevr., MS.* Columb.
conformis, *Chevr., MS.*
annulata, *Dej. Cat.*
313 ambigua, *Clark, MS.* Amaz.
314 dubitans, *Clark, MS.* Cayenne.
315 lateralis, *Clark, MS.* ?
316 stolida, *Clark, MS.* ?
317 risoria, *Clark, MS.* Yucatan.
318 germana, *Clark, MS.* Venez.
319 tenuicincta, *Clark, MS.* Amaz.
320 composita, *Clark, MS.* Braz.
321 obliquata, *Clark, MS.* Amaz.
322 pudens, *Clark, MS.* Braz.
323 basipunctata, *Clark, MS.* Braz.
324 togata, *Clark, MS.* Amaz.
325 nupta, *Clark, MS.* Braz.
326 trivittata, *Clark, MS.* Braz.
327 nana, *Clark, MS.* Braz.
328 terminalis, *Clark, MS.* Braz.
329 picturata, *Clark, MS.* Braz.
330 graminis, *Clark, MS.* Amaz.
331 indistincta, *Clark, MS.* Cayenne.
332 bidens, *Chevr., MS.* ?
333 Senegalensis, *Clark, MS.* Senegal.
334 borealis, *Clark, MS.* L. Huron.
335 conspurcata, *Chevr., MS.* Mex.
scabra, *Chevr., MS.*
336 apricans, *Clark, MS.* Columb.
obliterata, *Chevr., MS.*
337 castanea, *Clark, MS.* Amaz.
338 occidentalis, *Clk., MS.* Old Calab.
339 fastidita, *Clark, MS.* Mex.
340 Saundersii, *Clark, MS.* Amaz.
341 Wollastoni, *Clark, MS.* Amaz.
342 vagepunctata, *Clk., MS.* Pennsylv.
343 Thomsoni, *Clark, MS.* Braz.
344 rufomarmorata, *Clark, MS.* Braz.
345 Pilatei, *Chevr., MS.* Yucatan.
dorsalis, *Pilate, MS.*
biarcuata, *Chevr., MS.*
346 flavicans, *Clark, MS.* Cayenne.
347 fusconotata, *Clark, MS.* Braz.
348 6-maculata, *Ill.* N. Amer.
349 pulex, *Clark, MS.* Amaz.
350 rustica, *Clark, MS.* Braz.
351 nigrogeniculata, *Clk., MS.* B. Ayres.
352 suturalis, *Fab.* ? N. Amer.
353 signata, *Chevr., MS.* Mex.

OMOPHOITA, *Dej. Cat.*

PTENA, *Dej. Cat.*

**A. Elytra concolorous.**

† *Elytra flavous.*

1 lactea, *Clark, MS.* Braz.
var. A. Braz.
2 designata, *Chevr., MS.* Braz.
3 lutea, *Clark, MS.* Braz.
4 simplex, *Chevr., MS.* Braz.
5 subfasciata, *Dej., MS.* Braz.
obsoleta, *Chevr., MS.*
6 cinctipennis, *Chevr., MS.* Mex.
7 glabrata, *Clark, MS.* Braz.
8 irrorata, *Clark, MS.* Braz.
9 pia, *Clark, MS.* Braz.
10 sordida, *Clark, MS.* Braz.
11 elongata, *Clark, MS.* Braz.

†† *Elytra for the most part dark-blue or black.*

12 atra, *Clark, MS.* Mex.
13 cyanipennis, *Fab.* S. Domingo.
14 fimbriata, *Clark, MS.* Chili.
15 caliginosa, *Clark, MS.* Mex.
16 apricans, *Clark, MS.* Esp. Sant.
17 dorsalis, *Clark, MS.* Peru.
18 carbunculus, *Clark, MS.* Braz.

**B. Elytra with longitudinal markings.**

19 Peruviana, *Clark, MS.* Peru.

**C. Elytra with longitudinal interrupted by transverse markings.**

20 T-alba, *Dej., MS.* Braz.
21 Orbignii, *Chevr., MS.* Bolivia.

22 cruciata, *Oliv.* Cayenne.
11-maculata, *Chevr., MS.* Cayenne.

**D. Elytra with transverse markings.**

† *Elytra flavous, the markings being darker.*

23 6-guttata, *Ill.* Braz.
var. A. Braz.
var. B. 8-guttata, *Chevr., MS.* Braz.
24 6-notata, *Dej., Chevr., MS.* Braz.
fastidiosa, *Chevr., MS.*
25 transversa, *Germ.* Braz.
6-notata, var., *Chevr., MS.*
26 integra, *Chevr., MS.* Cayenne.
27 longiuscula, *Chevr., MS.* Braz.
28 rufonotata, *Chevr., MS.* Costa Rica.
29 submaculata, *Clark, MS.* Braz.
30 rosea, *Clark, MS.* Braz.
31 episcopalis, *Ill.* Braz.
equestris, *nec Oliv.*
32 equestris, *Clark, MS.* Patr.?
33 leucaspis, *Germ.* Braz.
34 crucifera, *Chevr., MS.* Cayenne.
35 attenuata, *Chevr., MS.* Venezuela.
36 crux violacea, *Chevr., MS.* Braz.
37 fasciata, *Clark, MS.* Braz.
38 verticalis, *Chevr., MS.* Braz.
occipitalis, *Oliv.*?
39 pacta, *Dej., MS.* Columbia.
pygmentata, *Chevr., MS.*
40 micans, *Clark, MS.* Amaz.
41 Saundersii, *Clark, MS.* Mex.
42 ænea, *Clark, MS.* Peru.

†† *Elytra dark, the markings being flavous.*

43 chryseis, *Clark, MS.* Costa Rica.
44 bitæniata, *Chevr., MS.* Bolivia.
45 abbreviata, *Fab., Oliv.* Cayenne.
46 bicincta, *Dej., MS.* Cayenne.
abbreviata, *Oliv.*
47 4-fasciata, *Fab.* Cayenne.
rivularis, *Dej., MS.*
unicolor, *Chevr., MS.*
48 arida, *Clark, MS.* Minas Geraes.
49 albicollis, *Fab.* Guatemala.
50 comitessa, *Chevr., MS.* Venezuela.
51 tabida, *Clark, MS.* Costa Rica.
52 flexuosa, *Clark, MS.* Para.
53 rustica, *Clark, MS.* Para.
54 nobilitata, *Fab., Oliv.* Cayenne.
55 princeps, *Clark, MS.* Braz.
56 regina, *Chevr., MS.* N. Granada.
57 illusa, *Chevr., MS.* Braz.
58 ornata, *Ill.* Braz.
59 imperialis, *Clark, MS.* Amaz.
60 Philemon, *Clark, MS.* Amaz.
61 7-maculata, *Chevr., MS.* Cayenne.
62 5-signata, *Chevr., MS.* Braz.
63 Tocantinensis, *Chevr., MS.* Para.
4-signata, *Chevr., MS.*
64 signata, *Clark, MS.* Amaz.
65 vernalis, *Clark, MS.* Para.
66 obscura, *Clark, MS.* Amaz.
67 splendidula, *Clark, MS.* Amaz.
68 melazona, *Chevr., MS.* Braz.
69 exoleta, *Clark, MS.* Up. Amaz.
70 bisellata, *Chevr., MS.* Para.

**E. Elytra with transverse apical and oblique humeral markings.**

71 insolita, *Chevr., MS.* Braz.
6-signata, *Dej., MS.*
illigata, *Chevr., MS.* Columb.
var. A. complacita, *Reiche, MS.* Braz.
var. B. Rostanei, *Buq., MS.* Columb.
72 conjuncta, *Clark, MS.* Braz.
73 tortuosa, *Chevr., MS.* Braz.
74 hippodamia, *Chevr., MS.* Mex.
75 scutellata, *Chevr., MS.* Mex.
76 litteraticollis, *Chevr., MS.* Guatemala.
77 scriptipennis, *Clark, MS.* Braz.
78 triangulifera, *Chevr., MS.* Bolivia.
79 angulonotata, *Clark, MS.* Braz.
10-notata, *Dej., MS.*

**F. Elytra with transverse apical and tortuous humeral markings.**

80 signatifera, *Dej.. MS.* Columbia.

**G. Elytra with isolated spots.**

† *Elytra flavous, with dark spots.*

81 nigropunctata, *Chevr., MS.* Mex.

†† *Elytra dark, with flavous spots.*

82 quadrina, *Buq., MS.* Mex.
levana, *Buq., MS.*
fenestrata, *Chevr., MS.*

83 Inca, *Clark, MS.* Peru.

84 4-notata, *Fab., Oliv.* Braz.
4-guttata, *nec Oliv.*

85 ocellata, *Chevr., MS.* Braz.
Argus, *Chevr., MS.*
pavonina, *Chevr., MS.*
pupillata, *Dej., MS.*

86 rauca, *Clark, MS.* Braz.

87 induta, *Clark, MS.* Venezuela.

88 Amazoniensis, *Clark, MS.* Amaz.

89 senicula, *Clark, MS.* Costa Rica.

90 fulgida, *Fab., Oliv.* Cayen., Braz.

91 albicollis, *F., Oliv.* Braz., Columb.
10-notata, var., *Dej.* Cayen., Mex.

92 æquinoctialis, *Clark, MS.* Mex., Venez., Jamaica.

93 10-notata, *Dej., MS.* Braz., Cay., Mex., Columb.
æquinoctialis, var., *Oliv.*
rugosa, *Chevr., MS.*
obsoleta, *Chevr., MS.*
leucodera, *Chevr., MS.*
albicollis, var., *Chevr., MS.*

94 Patagonica, *Chevr., MS.* Patagonia.

95 8-guttata, *Dej., MS.* Braz., N. Granada.
maculipes, *Chevr., MS.*
bis 4-guttata, *Chevr., MS.*
leucocephala, *Chevr., MS.*

96 tetraspilota, *Chevr., MS.* Braz.

The examples which have formed the basis of the above Catalogue are from the cabinets of my friends Messrs. Baly, Bonvouloir, Chevrolat, Deyrolle, Dohrn, Fry, J. Gray, Lacordaire, Miers, Murray, Saunders, Schaum, Thomson, and Waterhouse, with the addition of the collection of the British Museum: the material entrusted to me for examination has been or is being returned to its respective owners. I am glad to be able to acknowledge the special advantage that I have derived from the collection of M. Chevrolat, not so much on account of the range of species contained in it (though this is considerable), as by reason of the care and exactitude which had manifestly been given to the separation of different species, and of the same species from different localities. With regard to the foregoing arrangement of the group, I may add that probably some of the forms which in it are made to constitute separate species may ultimately prove to be but sexual varieties. I have a suspicion that *Œdionychis* 276 *dispar* and 23 *atriventris* are the two sexes of the same insect, also 227 *variolaris* and 223 *dilecta*. As at present, however, there is no absolute proof of this, I have had no alternative but to register them provisionally as distinct species.

# JOURNAL OF ENTOMOLOGY.

No. X.—June. 1864.

## XV.—*Contributions to an Insect Fauna of the Amazon Valley.*—Lepidoptera—Nymphalinæ. By H. W. Bates.

The group to which the present memoir relates comprises all those genera of Diurnal Lepidoptera which agree in having atrophied front legs in both sexes, chrysalides suspended freely by the tail, and hind-wing cells open, or closed by rudimentary instead of perfect tubular nervules. Our Nymphalinæ, therefore, include the families Ageronidæ, Nymphalidæ, Eurytelidæ, and part of the Morphidæ of Doubleday and Westwood, as defined in Doubleday and Hewitson's 'Genera of Diurnal Lepidoptera.' Although many of the genera, especially those tropical Eastern forms allied to *Morpho*, such as *Clerome*, *Amathusia*, *Discophora*, *Melanitis*, &c., show, by their larvæ having forked tails, perhaps a nearer relationship to the Brassolidæ and Satyridæ than to the rest of the Nymphalinæ, yet the character of open hind-wing cells seems to bind together a tolerably natural assemblage, and, in default of a better, may be taken as the leading diagnostic mark of the group.

Whether the Nymphalinæ as here defined should be considered a family or subfamily, I think, cannot be decided until the families and subfamilies of the whole order have been worked out on a uniform plan; I have preferred, in a Table of the Diurnal Lepidoptera given in a former paper published in this Journal (vol. i. p. 219), to treat the group as a subfamily, believing that it differs from the allied subfamilies Heliconinæ, Danainæ, Satyrinæ, &c., in about the same degree as the Pierinæ differ from the Papilioninæ; the points of distinction in all these cases not seeming to be of so important a nature as those existing between the Nymphalidæ as a whole (including Heliconinæ, Satyrinæ, &c.) and the Erycinidæ, or between the families Lycænidæ and Papilionidæ (Papilioninæ and Pierinæ).

The following Table of the section Rhopalocera, founded on an imperfect one given in the memoir above alluded to, will give a clearer idea of what I consider to be the position of the Nymphalinæ in a linear series, commencing with the group which in a natural system ought to stand at the head of the order.

Order Lepidoptera.

Section Rhopalocera, or Diurna.

Family 1. *Nymphalidæ*. Front legs imperfect in both sexes; in the ♀ wanting the tarsal claws; in the ♂ the fore tarsi quite rudimentary, consisting of one or two spineless joints. Pupa suspended freely by the tail.

a. Lower disco-cellular nervule of the hind wing perfect.

Subfam. 1. *Danainæ*. Larvæ smooth, with fleshy processes. Fore-wing submedian nervure of the imago double at its origin. (This subfamily includes the greater part of the Heliconidæ of authors.)

Subfam. 2. *Satyrinæ**. Larvæ with bifid tails, spineless. Palpi of the imago generally compressed and fringed with long hair-scales.

Subfam. 3. *Brassolinæ*. Larvæ generally with bifid tails, spineless. Hind wing of the imago furnished with a prediscoidal cell. (*Pavonia, Opsiphanes, Dynastor, Dasyophthalma, Penetes, Narope, Brassolis.*)

Subfam. 4. *Acræinæ*. Larvæ studded with branched spines. Palpi of the imago thick and scantily clothed with hair.

Subfam. 5. *Heliconinæ*. Larvæ studded with branched spines. Palpi of the imago clothed with fine scales, and hairy in front.

b. Lower disco-cellular nervule, at least of the hind wing, more or less atrophied.

Subfam. 6. *Nymphalinæ*.

Family 2. *Erycinidæ*. Six perfect legs in ♀; four in ♂, the anterior tarsi consisting only of one or two joints and spineless.

Subfam. 1. *Libytheinæ*. Pupa suspended freely by the tail.

Subfam. 2. *Stalachtinæ*. Pupa secured rigidly by the tail in an inclined position without girdle.

* Dr. Felder has recently detected a commencement of bifurcation of the base of the submedian nervure in *Hetæra* and other genera of Satyridæ—a feature which confirms the view, suggested by other parts of structure, of a near relationship between the Danainæ and Satyrinæ.

Subfam. 3. *Erycininæ.* Pupa recumbent on a leaf or other object, and secured by the tail and a girdle across the middle.

Family 3. *Lycænidæ.* Six perfect legs in ♀; four in ♂, the anterior tarsi wanting one or both of the tarsal claws, but densely spined beneath. Pupa secured by the tail and a girdle across the middle.

Family 4. *Papilionidæ.* Six perfect legs in both sexes. Pupa secured by the tail and a girdle across the middle. (The true Papiliones have a leaf-like appendage to the fore tibiæ—a character which approximates the family to the Hesperidæ and Moths.)

Subfam. 1. *Pierinæ.* Abdominal margin of the hind wing not curved inwards.

Subfam. 2. *Papilioninæ.* Abdominal margin of the hind wing curving inwards.

Family 5. *Hesperidæ.* Six perfect legs in both sexes; hind tibiæ, with few exceptions, having two pairs of spurs. Pupa secured by many threads, or enclosed in a slight cocoon.

A few words on the reasons which have compelled me to incorporate the Morphidæ and Eurytelidæ with the true Nymphalinæ will be here necessary. As to the family Ageronidæ, it was founded on a mistaken observation regarding the position of the pupæ, and has already been referred to its true place by Dr. Felder in an essay on the Nymphalidæ which he has lately published*. The Morphidæ of Westwood was from the first a heterogeneous group, comprising genera having the hind wing-cell closed by perfect tubular nervules like the Satyridæ, and distinguished besides from all other groups by the possession of a small prediscoidal cell in the same wings; together with genera having the hind wing-cell open, and a plan of neuration not differing essentially from the true Nymphalinæ. These latter genera (*Morpho*, *Thaumantis*, &c.) seem to have a near relationship to the Satyridæ, and a more distant one with the Brassolidæ, to which all the genera with prediscoidal cells must be referred according to the foregoing Table. But they exhibit no good character whereby they may be distinguished from the Nymphalinæ—a fact which Mr. Westwood has admitted in his admirable treatise, since published, on the Oriental species of the *Morpho* group†. The old-world genera are

* Ein neues Lepidopteron, &c., Jena, 1861.

† Trans. Ent. Soc. vol. iv. new ser. part vi.

closely allied through *Amathusia* to *Kallima*, the larvæ of which latter genus, discovered by Dr. Doleschall in Amboyna, have, according to Dr. Felder, great resemblance to those of *Junonia* and the *Vanessæ*. As the larvæ of many of the other genera of Morphidæ have forked tails like the Satyridæ and most of the Brassolidæ, and are moreover related by the same character to the larvæ of *Apatura*, we have at once evidence of the close alliance of the Morphidæ with the Nymphalinæ, and a proof of the intricacy of the relationships which bind all the genera of Nymphalinæ together. These facts also show that the resemblances between the larvæ are not borne out by those existing between the perfect insects of this family; although a similar form of larva does undoubtedly persist through many genera of this subfamily in harmony with resemblances between the imagos.

The Eurytelidæ seem to have still less right than the Morphidæ to constitute a separate family; for none of the genera, except *Melanitis*, possess anything in their structure to remove them from the neighbourhood of such genera as *Crenis* or *Pyrrhogyra*. *Melanitis* differs from the rest in the males of the perfect insects having pencils of hairs on the hind wings, and in the larvæ having cephalic spines, forked tails, and a smooth skin—characters which reveal a relationship to the *Apatura* group, several genera of which have in the male sex similar appendages on the hind wings; and to the eastern members of the *Morpho* group, near which and the Satyrinæ *Melanitis* ought to be placed. The larvæ of the other genera, or at least such as are known, have all the characters of Nymphalinæ of the *Callithea* group; that is, spinose bodies, and heads surmounted by branched spines. The larva of *Didonis* resembles that of *Ageronia*, in the neighbourhood of which the genus would find its true position; *Eurytela*, *Ergolis*, and perhaps *Hypanis* would be better placed near *Crenis* and *Eunica*; *Olina* and *Cystineura* in the vicinity of *Victorina* and *Pyrrhogyra*.

It will be apparent from these details that the subfamily Nymphalinæ, although containing a great diversity of generic types, can with difficulty be classed even into groups of genera. Some sort of subdivision, however, is highly desirable for the sake of facilitating the study of so extensive an assemblage, which now comprises no less than 120 genera and 1200 described species. As far as the American members are concerned, the genus *Morpho* may be detached from the rest, and formed into a subdivision characterized by the great size of the insects and the shape of the discoidal cell of the fore wings. As to the remaining genera, I have tried in vain to discover

characters at all constant for the formation of groups. There seem indeed to be two distinct types of larvæ, namely, that of the *Apatura* group, distinguished by the smooth skin and bifid head, which will connect together *Apatura*, *Charaxes*, *Prepona**, and a few other genera; and that of *Argynnis*, *Vanessa*, and *Limenitis*, in which the body is studded with branched spines. This latter or *Vanessa* type seems again to be divisible into two, in one of which the head is bifid and surmounted by two long branched spines (*Epicalia*, *Callithea*, *Diadema*, *Ergolis*, &c.), and in the other rounded and spineless (*Argynnis*, *Vanessa*, &c.).

We are now acquainted with the transformations of thirty-eight genera of Nymphalinæ, and are thus enabled to test the value of larval structure as a systematic character. The result is that the value is very small; for cephalic spines reappear in members of the *Apatura* group (*Siderone*, *Paphia*) and of the *Argynnis* group (*Colœnis*, *Agraulis*), thus weakening the importance of this character; and again, one genus, *Limenitis*, shows a great diversity of larval form between allied species, as may be seen on comparing figures of the larvæ of *L. populi* and *L. Sibylla*. Moreover the larvæ of some genera are of quite an aberrant character, supplying no clue to the affinities of the imagos; such are those of *Timetes* (*T. Petreus* figured by Stoll), and *Adolias Acontea* (figured by Horsfield).

If we turn to the perfect insects, we find the intricacy of relationships almost as great as that revealed by the larvæ; for whether we take the form and style of colouring of the wings, the neuration, shape of antennæ, palpi, or legs, we cannot discover amidst the great diversity which exists in all these parts, any constancy of form within any group of genera that may serve as points of distinction from other groups of genera. Thus, although *Apatura* and *Prepona* agree pretty well as to their larvæ and the form of wings of the imagos, they differ greatly in neuration, and to some extent also in the antennæ. *Siderone*, *Protogonius*, and other genera, again, belong to the *Apatura* group in their larval condition, but differ much both from *Apatura* and *Prepona* in their neuration. At the opposite end of the subfamily we find a large number of genera allied to *Argynnis* which agree in the shape and clothing of the palpi and in style of coloration, and we seem to have here a natural group; but a feature exists in some of the members of it (*Colœnis*, *Agraulis*, *Clothilda*), namely, the closure of the fore wing-cell by a perfect

* The transformations of *Prepona* have not yet been made known; I have, however, bred *P. Amphimachus* and possess drawings of the larva and pupa.

tubular nervule (with an angle in the median nervure to receive this nervule), that is seen again only in the genera of the *Morpho* group, which, to all appearance, lie very widely apart from *Argynnis*. These three Argynnite genera differ also from all the rest of the Nymphalinæ in the claw-joint of the tarsi being free from appendages, and in the claws themselves being long and nearly straight, instead of strongly curved, as is usual in the subfamily. The Nymphalinæ, therefore, would seem to be divisible into a rather large number of minor groups, characterized by modifications in the neuration, form of palpi, antennæ, legs, and larvæ, and not into the two or three primary sections which some authors have attempted to establish.

But if the classification of the genera be thus a matter of great difficulty, the definition of the genera themselves is a very easy task; for this highly beautiful assemblage of insects is one of those groups which nature seems to have modelled on a large number of subordinate types, and in effecting this has obliterated those marks which usually serve to link genera together in wider groups. The members of each genus retain very generally a common facies, owing to the shape and style of coloration of the wings being persistent throughout a series of species, which, oftener than is usual in groups of this extent, are demarcated by these features from the members of other genera. In passing the Amazonian genera and species in review, I shall follow the example of the latest and best authorities in this family, by treating the suite of genera as a connected whole, classing them simply into Nymphalitæ and Morphitæ. The further division of the subfamily into a number of minor sections, which I have mentioned as possible, cannot satisfactorily be done in a faunistic work, but must be deferred until the Nymphalidæ of the whole world can be examined.

The subfamily Nymphalinæ is well represented in the forest-plains of the Amazons, 41 genera and about 160 species having been found in this region by myself *. No less than 17 Tropical-American genera, however, do not occur in this low equatorial wooded region. These are—

| | | |
|---|---|---|
| Clothilda. | Cybdelis. | Lucinia. |
| Gnathotriche. | Epiphile. | Amphirene. |
| Synchloë. | Hæmatera. | Smyrna. |
| Morpheis. | Batesia. | Pycina. |
| Eurema. | Callitænia. | Cymatogramma. |
| Pyrameis. | Perisama. | |

* Eighty-one of these were new to science when I sent them to Europe.

The absence of seven of these may be explained by the fact of their being found only in mountainous regions, or at least in warm valleys of a greater elevation than any part of the Amazons country. These are *Gnathotriche*, *Synchloë*, *Pyrameis*, *Cybdelis*, *Epiphile*, *Perisama*, and *Pycina*; *Pyrameis* being a genus characteristic of the temperate zones of the whole earth, but found only in elevated places in the neighbourhood of the equator, and quite absent from the banks of the Amazons. Two other genera (*Clothilda* and *Lucinia*) are peculiar, or nearly peculiar, to the West India Islands, and therefore could not be expected to occur in the Amazons region. The same might have been anticipated of two others, *Morpheis* and *Cymatogramma*, which inhabit only the northern part of Tropical America. If we withdraw two of the remaining six, namely, *Callitænia* and *Batesia*,—which, although not observed along the centre of the Amazonian plain, inhabit its northern and western confines,—there remain four whose absence can with difficulty be accounted for, as they are mostly very common insects, apparently in low-lying regions, to the north and south of the Amazonian plains, and yet are entirely absent from the intermediate country. These are,—1, *Eurema*, which has representatives in New Granada, Guatemala, and Mexico, to Texas and Kansas, and again in South Brazil—one species, indeed (*E. Lethe*), being common to these two opposite quarters—but yet is entirely wanting throughout the whole equatorial region of the Amazons from east to west; 2, *Hæmatera*, the species of which, inhabiting South Brazil and Venezuela, seem to be local varieties of one and the same stock; 3, *Amphirene*, of which precisely the same may be said; and lastly, 4, *Smyrna*, whose two species, like *Eurema Lethe*, are very common insects from about 23° to 30° S. lat., and from 6° (probably at an elevation) to 16° N. lat., and yet are completely unknown in the intermediate Amazonian region. The explanation of these anomalies in distribution seems to require the former existence of greater facilities than now exist for the migration from northern to southern regions (or *vice versâ*) of insects which are apparently unable now to sojourn in the intermediate forest-plains. This very interesting question, however, which involves considerations regarding geological and climatal changes that may have supervened in tropical and subtropical America since the date of the first appearance of existing species, cannot be entered into in detail until we have much more exact information of the range of genera and species (common to north and south, but absent at least from the plains of the intermediate equatorial zone) along the line of the Andes, under the equator. It may be that such genera and species find even now a

free passage by this route, and that the still more singular reappearance in the south temperate zone of genera characteristic of high northern latitudes can be explained in the same way. We can only hope that future travellers in New Granada, Ecuador, Peru, and Bolivia will be careful to note the ranges, both horizontal and vertical, of all the species they collect; for by so doing they would contribute greatly to the solution of this and many other kindred problems in geographical distribution.

Of the 41 genera found on the banks of the Amazons, one only, *Antigonis*, is peculiar to the region. The smallness of the number common to the Amazons and the Old World is very remarkable, there being only four, namely, *Melitæa*, *Junonia*, *Salamis*, and *Apatura*. No less than 28 out of the 41 are generally distributed in tropical and subtropical America. Four are common and peculiar to Guiana with the Amazons (the Guiano-Amazonian province), besides three others which extend a little further westward into Venezuela and New Granada. One genus, *Pandora*, is peculiar and common to the upper part of the Amazons plains and New Granada; but there is not a single generic group common and peculiar to the Amazons and Brazil proper. From these details the high degree of peculiarity of the Tropical-American fauna stands forth with great clearness; at the same time the small proportion of genera limited to one or two parts of the region shows how large are the diffusive powers of the insects composing the subfamily. If we descend from genera to species, however, we discover that this generality of distribution is not so strongly marked; for 74 out of the 160 Amazonian species are, as far as at present known, confined to this part of Tropical America; 32 are peculiar and common to Guiana and the Amazons, whilst 7 are Brazilian, 9 New Granadian (or extending still further north), and 1 Bolivian. The number of peculiar Amazonian species will no doubt be considerably reduced when the valleys of the Andes are better explored; but still the fact of numerous species and genera common to the whole of Tropical America being confined to limited districts within the region is sufficiently well established to lead us to expect a large amount of peculiarity also in the Amazons plains; and the whole shows that the process of distribution must be a very slow one to have caused so general a diffusion of genera, whilst the species, at a given epoch, are so commonly restricted to limited areas.

Little can be said of general application regarding the habits and natural history of the Nymphalinæ of the Amazons region. As may be seen from the foregoing remarks, the early states of the insects are

much diversified, and it is the same with their haunts and modes of flight. A certain number of genera, belonging more especially to the *Argynnis* and *Vanessa* groups, such as *Colœnis*, *Agraulis*, *Euptoieta*, *Melitœa*, *Anartia*, and *Junonia*, are seen only in open sunny places, such as weedy plantations and the suburbs of towns and villages or the borders of woods. These are never found in the shades of the forest, and the food-plants of their larvæ are such as grow only in open semicultivated places. It is interesting, therefore, to find that the only Amazonian genera which are closely related to the *Argynnes* and *Vanessæ* of our own country are such as inhabit a sort of localities that both regions afford, and not the great tropical forest which harbours the peculiar forms of South America. The *Melitœæ* of the Amazons are very small and plainly marked; indeed they cannot be compared for size and beauty of form and markings with our English *Athalia* or *Cinxia*, and, like these northern species, they frequent weedy and flowery places on the borders of woods, flying low, and having somewhat of the floating motion in their flight: unlike the insects of the *Vanessa* group, one only of which (*Junonia Lavinia*) is found in the Amazons region; for these are irregular in the motions of their wings, and settle frequently. *Euptoieta Hegesia*, the only butterfly of the Amazons region that has a near resemblance to the *Argynnes* of Europe, inhabits the undulating meadow-districts of the country which lie near the middle part of the lower course of the river, and is never seen in the true forest-districts. This species, which is about the size of *Argynnis Lathonia*, flies about the lower herbage and flowering bushes in the same way as our British *Argynnes*. There are two other Amazonian genera, *Anartia* and *Libythina*, which accompany the Argynnitæ and Vanessitæ in their grassy haunts; but these generally prefer the marshy meadows on the banks of rivers.

The rest of the Amazonian Nymphalinæ are denizens of the great forest, and nearly all of the genera, as before remarked, are peculiar to Tropical America; being creatures of the humid and luxuriant sylvan domain which spreads over all the river-valleys, and extends in most parts of the region far up the slopes of the mountains, skirting everywhere the margins of rivulets and torrents. One only of these genera is found in Europe, namely, *Apatura*, two species of which, inferior to our purple Emperor in size and beauty, inhabit the banks of the Amazons. If we except the genus *Eresia*, the species of which are no other than *Melitœæ*, with wings lengthened after the manner of their inseparable companions, the *Heliconii*, and which hover about low shrubs in the shade of the forest, the remainder of

the Nymphalinæ, exclusive of the Morphitæ, may be classed, as respects their habits, into five groups. The first comprises a series of genera and species which resemble our *Apatura Iris* in manners and style of flight. These live in the crowns of the forest-trees, and descend only to the ground in sunny places to suck the moisture from mud, moist sand, or ordure on the forest-pathways or the margins of pools and streams. But it is the males almost exclusively that have this latter habit, the females remaining in the forest, where their mates join them, after their summer day's separation, in the afternoons when the sun is getting low. The males in very many of these species are much more brightly coloured than the females, and appear to be much more numerous. In some places, during the fine season (August to October), they assemble by hundreds, sometimes thirty or forty species together, of the most varied shapes and colours, to sport about in muddy places exposed to the morning sun. *Catagrammæ* and *Callithece*, with liveries of velvety crimson and black, or sapphire and orange; *Eunicæ*, with purple hues glancing in the sunlight as they fly; swallow-tailed *Timetes* of many species; silky-green *Eubages*; blue, white, and black *Megistanes*, tailed like the *Charaxes Jasius* of Europe, and many other kinds less conspicuous in colour and form, are all seen together, either settled on the ground or swiftly flying to and fro above it. If the day becomes cloudy or windy, the sensitive creatures gradually betake themselves to the shelter of the neighbouring forest. Warm, calm, gleamy weather seems the most favourable to their appearance in the open places, a few females sometimes venturing from the forest at these times to join the company.

The second group is formed by such species as, having similar habits to those of the first group, never or very seldom leave the forest. Most of the richly coloured *Epicaliæ* belong to this category, and also the *Temenes* and others. These have, like many of the preceding, a rapid and irregular flight, the males settling for a few moments at a time on foliage where a ray of sunlight pierces the shades. The third group consists of species allied to the *Limenites* of Europe, such as the *Heterochroæ*, many kinds of *Eubagis*, the *Pyrrhogyræ*, and others, all of which fly about the lower trees in thinned parts of the forest, and have a floating, partly horizontal, and wheeling flight. If they are disturbed when settled on a leaf near the ground, they wheel round in flying off and settle on a higher place, and so on, until they are out of reach. The fourth group, also shade-lovers, are such as settle only on the trunks of trees; these are the *Gynecicæ* and *Callizonæ*, which hold their wings erect in repose,

the *Ectimæ* and *Pandoræ*, whose wings are partly open, partly closed, when they settle, and the *Ageroniæ*, which extend their wings flat on the trunks of trees. These latter are most peculiarly coloured, and differ much from all other Nymphalinæ in their habits, as will be familiar to all readers of travels in Brazil. Lastly, the fifth group is composed of numerous genera and species closely related to our purple Emperor, which also live habitually in the forest, but have a most rapid flight, and settle frequently on outstretched branches or foliage. They are all bold creatures, not moving from their perches until driven off, and, even when scared away, returning to them after a few minutes' absence, dashing meanwhile with arrowy swiftness along the forest-alleys. Such are the species of *Agrias*, the most beautiful genus in the whole subfamily; the *Preponæ*, the *Siderones*, and the *Paphiæ*, of all of which there are numerous species in the Amazons region, some of them extremely common.

A few words may be said, in conclusion, regarding the habits of the species of the *Morpho* group. These have no resemblance whatever to those of any of the genera of Nymphalinæ; but what lessens the value, in a classificatory sense, of this distinction is, that the *Morphos* differ quite as much amongst themselves as they do from the Nymphalinæ. They are all, it is true, creatures of the great forest; but whilst some have a flapping and undulating flight, straight onward along the alleys of the forest, and near the ground, others are never seen, except steadily gliding with outstretched wings from 20 to 100 feet above the ground, where they move across sunny spaces between the crowns of the taller trees. The low-flyers are *M. Achilles*, *M. Deidamia*, *M. Menelaus*, and their subspecies; the high-flyers, *M. Uraneis*, *M. Rhetenor*, *M. Telemachus*, *M. Cisseis*, and *M. Hecuba*: the three latter of which are very seldom observed to flap their wings as they lazily fly along, whilst *Uraneis* and *Rhetenor* do so at every dozen or so yards of their course. *Achilles* and its allies, moreover, settle frequently on the ground to suck the juices from fallen fruit, in the company of *Temenis Ariadne*, *Nica sylvestris*, and other Nymphalinæ, besides Satyridæ of the genera *Antirrhea*, *Taygetis*, *Hetæra*, &c.; but the members of the other section of the *Morphos* never descend to the ground. Indeed it is only very early on calm sunny mornings and towards midday, just before a thunderstorm, that they are tempted or forced to descend from their great elevation.

## LEPIDOPTERA DIURNA.

### Family **Nymphalidæ.**

### Subfamily Nymphalinæ.

### Group Nymphalitæ.

### Genus Colænis, Doubleday.

The species of *Colænis* are seen only in open, sunny places; such as waste grounds, gardens, and the borders of woods, where flowering bushes grow. They are never found in the great forest, but seem to be attendants on man, making their appearance wherever a clearing is commenced in the woods. They have not a very rapid flight, nor much of the floating mode of progression when on the wing, but move about somewhat irregularly and settle frequently, their attraction being always flowers, and never moisture or filth on the ground, as is the case with the more typical genera of Nymphalinæ. There can be no doubt that the *Colænes* are closely related to the Heliconinæ (*Heliconius* and *Eueides*); indeed the only difference of importance is the absence of a lower disco-cellular nervule from the hind wings—a character which brings them within the pale of the Nymphalinæ. The genus is related, on the other hand, to the *Argynnes* of temperate climates, through the genera *Agraulis* and *Clothilda*.

#### 1. *Colænis Dido*, L.

This handsome and well-known insect is generally distributed throughout the Amazons region, its great expanse of wing and clear grassy-green colour making it a conspicuous object in all semi-cultivated places near settlements. Guiana and Amazonia seem to be the headquarters of the species.

#### 2. *Colænis Phœrusa*, L.

*P. Phœtusa*, Cramer, 130 B. C.

Also a generally distributed and common insect, found in company with *C. Dido*. Its range seems to extend farther to the north than *C. Dido*, as Mr. Osbert Salvin found it abundantly in Guatemala, where its companion did not occur.

#### 3. *Colænis Julia*, Fab.

*P. Alcionea*, Cramer, 215 A. F. G.

Equally common and widely dispersed with *C. Phœrusa*. It ranges over nearly the whole of Tropical America.

Genus Agraulis (Boisd.), Blanchard.

The remarks made on the genus *Colœnis* apply equally to the *Agraules*. The two genera form part of a small group distinguished from the rest of the genera allied to *Argynnis* (1) by the fore-wing median nervure forming, at a distance from its terminal fork, an angle to receive the disco-cellular nervule, and (2) by the tarsal claws being long and apparently free from appendages.

4. *Agraulis Juno*, Fab.

*P. Juno*, Cramer, 215 B. C.

The range of this species seems to be pretty nearly coincident with those of *Colœnis Phœrusa* and *C. Julia*; but the insect appears to be subject to a greater amount of local modification than these two. In the humid forests of Ecuador, on the western slope of Chimborazo, at an elevation of 3000 or 4000 feet, the type seems to be wholly replaced by one of these local forms, which is so well-marked as to deserve a separate name and mention*.

5. *Agraulis Lucina*, Felder.

*A. Lucina*, Feld. Faun. Lep. R. Negro Sup. no. 76.

This recently described species differs from *Ag. Juno* in the outer margin of the fore wing being straight instead of strongly incurved in the middle, and in the under surface of the hind wing having only one silvery spot on the disk instead of many. It was a common species at Ega, Upper Amazons, flying over flowering bushes on the borders of the forest. The specimens described by Dr. Felder came from the Upper Rio Negro; the species therefore has a range of small extent over the interior of the continent.

6. *Agraulis Vanillæ*, L.

This well-known and very common species has the widest range of all the members of the *Colœnis* and *Agraulis* groups, being found

* *Agraulis Andicola*. Wings of the same shape but much shorter than in *Ag. Juno*, measuring only from 2″ 9‴ to 3″ in expanse, whilst *Ag. Juno* reaches in its smallest examples 3″ 3‴. Above orange-tawny, as in *Ag. Juno*, but duller in hue: the outer and apical borders of the fore wings, instead of being broad, irregular, black, and much widened at the apex, are narrow, neatly circumscribed, and of a faded brown colour. The two short black costal belts are also paler. The border of the hind wing consists of two undulated lines, one marginal, the other submarginal. The silvery spots of the under side offer no difference worthy of note from those of *Ag. Juno*.

Western roots of Chimborazo. Sent in some number by Mr. Spruce, the well-known botanical traveller.

throughout Brazil, and as far north as the Southern States of Northern America, including the West India Islands.

Genus Euptoieta, Doubleday.

This genus of Fritillaries forms the nearest approach that Tropical America offers to the beautiful *Argynnis* group, so rich in species and abundant in individuals in the northern temperate zone in both hemispheres. It differs from *Argynnis* in the pulvillus between the tarsal claws being inconspicuous instead of largely developed, and in the claws themselves being long and straight, instead of short and curved as in *Argynnis*. In neuration also it differs much from *Argynnis* proper (*Lathonia*, *Paphia*, &c.), but approximates closely to the section *Brenthis* (*Euphrosyne*, *Dia*, &c.). In fact the species, both in neuration and style of colouring of the underside of hind wings, show a decided affinity to a section of the group *Brenthis* which is peculiar to the extreme south of South America, where a little isolated colony, as it were, of *Argynnes* is located in Chili and the Falkland Islands.

7. *Euptoieta Hegesia*, Cram. 209 E. F.

Abundant in open grassy tracts of country, or campos, in the middle part of the Lower Amazons, both on the north and south sides of the river; flying slowly, and settling on flowering leguminous shrubs and other plants; never seen in the forests. The species has a wide range, being found in South Brazil, and throughout Guiana, as far north as Guatemala, where it occurs in company with the closely allied *Euptoieta Claudia*, without showing transition forms. Further north, in North America and in the West India Islands, *Claudia* alone is found.

Genus Melitæa, Auct.

8. *Melitæa Liriope*, Cramer, 1 C. D.

A common insect in open, weedy, and shrubby places near towns; flying in a sailing manner over low bushes. The Amazonian examples agree pretty closely with the figure of Cramer, which was made from a Surinam specimen. The species is found throughout Brazil to Rio Grande, in 30° south latitude; in this southern part of its range it recedes considerably from the Guiano-Amazonian form, becoming clearer in colour, with the dark-brown border and the oblique belt of fore wings narrower, darker, and more clearly defined (*Acræa Claudina*, Esch., Kotzebue's Reise, pl. viii. f. 18 *a*, *b*; *Arg. flavia*, Godt. Enc. Méth. ix. 818. 66). Westward, towards the bottom of the

eastern slopes of the Andes, at Canelos in Equador, it is still further modified, forming a local variety which merits a separate name and mention*.

9. *Melitæa fragilis*, n. sp.

♂ ♀. Wings narrower than in *M. Liriope*; the hind wings being very little broader than the length of the abdomen. *Above*: pale and rather clear orange-tawny. Fore wings with a narrow dark-brown outer border, wider at the apex, where it is sinuated on its inner edge in the direction of the costa; basal half of the costa with an irregular brown border (in some specimens almost wanting), crossed by a few thin wavy lines, which sometimes extend into the cell. Hind wings with a narrow, distinct dark-brown outer border, lunulated on its inner edge; rest of the wing free from markings. *Beneath*: a little paler, with a marginal lunulated line of a darker hue, the fore wings having a paler subapical spot, and the hind wings numerous transverse wavy lines from the base to beyond the middle, followed by a row of spots and a submarginal lunulated line, all of a darker tawny shade than the ground-colour of the wing. Subcostal nervure of the fore wings emitting its first branch a little before, and its second a considerable distance after, the end of the cell.

This species seemed wholly to replace *M. Liriope* on the banks of the Cupari, a branch of the Tapajos, where it was common in weedy cacao-groves. I was inclined to think it only a local variety of *Liriope*, seeing that this is very vacillating in its markings; but the narrowness of its wings forms a structural character which shows a wider divergence from *Liriope* than that which a mere local modification would present. I have lately seen many examples of the same species from the interior of Guatemala, where it seems to be unaccompanied by *Liriope*. The Guatemala form, however, differs from the Cupari

* Local var. *M. Pastazena*. The same in size and form as the type, except that the fore wings are a little more pointed. *Above*: orange-tawny; fore wings with a broadish brown costal border, terminating abruptly at two-thirds the length of the wing, and crossed by a few indistinct short wavy lines; outer border brown, broadest at the apex, where it is sinuated on its inner edge. Hind wings with a very narrow, clearly defined, dark-brown border, which becomes a thin submarginal line before reaching the anal angle. *Beneath*: much paler, as in *M. Liriope*, without brown marks or borders, exhibiting only a lunulated submarginal line, preceded by a row of spots of a darker tawny than the ground-colour, the discoidal cell of the fore wings and the base and disk of hind wings having a few transverse wavy streaks of the same hue. Subcostal nervure of the fore wings emitting its first branch a little before, its second a considerable distance after, the end of the cell, as in *M. Liriope*, *M. Tharos*, and the allied species. Canelos banks of the Pastaza, in eastern Equador; collected by Mr. Spruce.

*Melitæa Cocyta*, Cram. 101 A. B. C. (*Morpheus*, Fab.), given, probably erroneously, as a native of Surinam, is the same as (or a slight variety of) *M. Tharos*, a North-American species.

examples in the much narrower border, which is sometimes entirely wanting on the hind wings, and in the fore wings does not show the characteristic sinuation near the apex. It may be, therefore, that both the Guatemala insect (which we will call local var. *Guatemalena*) and our *M. fragilis* are local modifications of *Liriope*; but it seems hardly likely that nearly the same variety would be produced in two widely distant localities.

10. *Melitæa Amazonica*, n. sp.

♂ ♀. Expanse 1″ 8‴. In size and general colour the same as *M. Liriope*; differs chiefly in wanting the subapical oblique dark-brown stripe of the fore wings, and in the first subcostal branch of the same wings being emitted *after* the end of the cell. Fore wing above orange-tawny, with a very broad outer border of a blackish-brown hue, broken on its inner edge by traces of orange-tawny lunules, which are more or less distinct according to the individuals. The costal border is tawny brown, broken in two places by spots of the ground-colour of the wing, and emitting a number of thin wavy brown lines, some of which near the base traverse the breadth of the wing. Hind wing above orange-tawny, with a blackish-brown outer border of the same breadth as that of the fore wing, and having a row of thin orange-tawny lunules in its middle. The border is preceded by a row of small dark spots, which are each surmounted by a dusky circumflex: the base of the wing traversed by a number of thin wavy brown lines. *Beneath*: all wings of the same pale hue as in *M. Liriope*. The basal halves are traversed by thin waves of a darker tawny shade, exterior to the last of which is a row of spots, and near the outer margin a lunulated line. What distinguishes *M. Amazonica*, in the colour of the underside, is the absence of large pale spots near the apex of the fore wing; all the thin lines and spots crossing the wing uninterruptedly from the costa to the hind margin. First branch of the subcostal nervure of the fore wing emitted at a distance from the end of the cell.

This species is distinguished from *M. Liriope* and all other known *Melitææ* by the peculiarity mentioned in the neuration of the wings; it is common and generally distributed throughout the Amazons region in the same situations as its congeners.

Genus Eresia, Doubleday.

The *Eresiæ* are true forest-dwellers. They do not, however, differ much in any essential character from the *Melitææ*, which, as all European entomologists well know, inhabit only meadows or open, heathy, and flowery places. The *Melitææ* of Tropical America, which differ a little in the shape of the palpi and in length of wing from the northern members of the genus, form the connecting link between the two genera; so that the *Eresiæ* may be looked upon as forest

*Melitæe* with wings lengthened in the manner of the *Heliconii*. The species have a low and rather weak flight.

11. *Eresia Eunice*, Hübner, Samml. Ex. Schm.
(♀ = *Pella*, Hewits. Exot. Butt. Eres. f. 2.)

A very common insect in thinned parts of the forest throughout the Amazons region. It flies near the ground in a floating and hovering manner, settling now and then on low plants. I have never seen it on the outside of the forest. The species varies much according to locality, following in the local variation of its colours the same rule as *Mechanitis Polymnia*, *Heliconius Numata*, and other fulvous-coloured butterflies; that is, having lighter belts across the fore wings in the region near the Atlantic, and becoming more uniform in tint in the interior of the continent. The shape of the black streaks also varies.

The following are the chief local varieties:—

1. Typical form.—Fore wing with an oblique median blackish-brown belt, thickest along its costal half, and touching the outer border; on each side of this is an ochreous belt, which is palest in the ♀. Disk of hind wing also paler than the ground-colour. Apical part of fore wing without pale spot in ♂, but having one in the ♀.—Abundant near Pará, and showing little variation within the district.
2. Tapajos form.—Median dark belt of fore wing broken into three spots in both sexes, namely, one close to the costa, a second in the middle, a third adherent to the outer border; on each side of the belt the wing is ochreous, paler in the ♀. Disk of hind wing concolorous. Apical part of fore wing with a small pale streak in both sexes.—This form prevails in the dry woods of Santarem and the Tapajos.
3. Upper Amazons form.—Median dark belt of fore wing in the ♂ reaching only halfway from the costa across the wing. Ground-colour of all wings uniform orange-tawny, including the spot in the apical part of the fore wing; in the ♀ the median dark belt is of the same shape as in the typical form, and the belt exterior to this is of an ochreous hue.
4. *Eresia Olivencia*.—In company with No. 3, at St. Paulo de Olivencia, there occurred individuals which diverge so much from the type as to merit a separate name. The ground-colour is clear orange-tawny. The median dark belt is well defined, but reaches little more than halfway across the wing; the apical part having an orange-tawny blotch. The dark streak on the

hind margin of the fore wing, found in all the other varieties, is here absent. Beneath, it differs considerably from its kindred varieties in the outer border of the hind wings, which, instead of having a row of pale lunules bordered by a lunulated dusky line, has simply a submarginal line of straight dusky streaks, and no pale lunules.

12. *Eresia Aveyrona*, n. sp. (Pl. X. fig. 4.)

♀. Similar in size and shape to *Er. Eunice*. Expanse 2″ 2‴. Unclear orange-tawny. Fore wing above with a dark-brown costal border, terminating beyond the middle, where it joins an oblique median belt of the same hue, which is of nearly uniform breadth, and extends to the outer border. Apex of the wing broadly dark brown; outer border of the same hue, narrow. Between the median belt and apex the colour of the wing is slightly paler. Middle part of the hind margin occupied by a dark-brown stripe. Hind wing above with a basal stripe and a broadish outer border dark brown, the border towards the anal angle having an orange-tawny streak. *Beneath*: fore wing nearly the same as above, but paler, the apex having a whitish spot, through which, parallel to the outer margin, is a thin dusky line. Hind wing with a short basal streak, and following it a subcostal one, which joins at the apex a narrow brown outer border, which extends to the abdominal margin, and has a shining-white line along its centre. A line of dark streaks runs not quite parallel to and at a short distance from the outer border. Antennæ black. Club beneath ochreous.

At Aveyros, on the Tapajos: one example only.

13. *Eresia Nauplia*, Linn.; Cram. 316 D. E.

A very common insect in the same situations as *Eresia Eunice*, namely, in thinned parts of the forest; flying low, over bushes and shrubs.

14. *Eresia Clara* (nob.)—Cram. 316 F. G. (as *Nauplia*, ♂).

This species has always been confounded with *E. Nauplia*; Cramer considering it as the ♂. I took both sexes of each in about equal numbers, and find the differences between the two forms (well given in the figures of Cramer) quite constant. It is remarkable that the two sister species are always found in company, and, judging from the fact of their having been confounded, they appear to have always been received mingled together from Tropical America. An analogous instance of two closely allied species being constant companions is furnished by *Dircenna Rhæo* and *Epidero*, of the family Heliconidæ; this case is the more remarkable as the insects are not generally dis-

tributed, but confined to circumscribed localities, scattered here and there over a wide region; but wherever one is found, there surely is to be seen its companion species. In another instance of inseparable species, namely, *Heliconius Doris* and *H. Erato*, I found by rearing the two from the same brood of caterpillars that they were two forms of one species only. I cannot think, however, that this will prove to be the case with *Eresia Nauplia* and *E. Clara*, or with *Dircenna Rhœo* and *D. Epidero*; for the points of difference in both these instances are multiple, instead of consisting of a mere substitution of colour, as in *Heliconius Doris* and *H. Erato*.

In a large collection of butterflies lately made in Guatemala by Mr. Osbert Salvin, I find many examples of *Eresia Clara*, but none of *E. Nauplia*; so that here one only of the companion forms appears to occur.

Genus Anartia (Hübn.), Doubleday.

A group peculiar to Tropical America, and not very closely related to any other known genus. Its nearest affinity seems to be with *Cynthia*, a genus peculiar to South-eastern Asia. The species have the habits and mode of flight of the *Vanessæ* and *Junonia*, and are found only in open, weedy, and bushy places, chiefly in the neighbourhood of towns.

15. *Anartia Jatrophæ*, L.

A very common insect in all waste places throughout the country. It seems to be equally common throughout the whole of Tropical America, undergoing scarcely any local modification.

16. *Anartia Amalthea*, L.; Clerck, Icon. pl. 40. f. 3.

Also a common insect, preferring, however, the moister districts. It extends southward as far as 30° S. lat., undergoing some little local modification.

Genus Junonia (Hübn.), Doubleday.

The *Junoniæ* are chiefly an old-world group, their metropolis being South-eastern Africa, with Madagascar; although one or more species occur in the hot zones of the whole world. They are amongst the most richly ornamented of the whole section of Diurnal Lepidoptera, and are closely related to *Pyrameis*, the genus which embraces our Red Admiral and Painted Lady butterflies. The species are very similar in habits and mode of flight to these familiar insects, and to the *Vanessæ*; having very little of the floating motion of the typical Nymphalinæ, and flying near the ground in open, flowery, and bushy

places. One species only is found in the Amazons region, and there only in the neighbourhoods of the larger towns.

17. *Junonia Lavinia*, Cramer, 21 c. d., and 203 c. d. (var.).

A common insect in grassy lanes and old gardens near Pará. It varies considerably in colours and markings.

Genus Salamis, Boisduval.

This genus is combined with *Junonia* by some authors, but very incorrectly, as it tends to make the group a very heterogeneous assemblage. The true *Salames* seem to be confined to Africa and Madagascar (*J. Sabina*, an eastern species included by Doubleday in this section, belonging to a different group, probably to *Rhinopalpa* of Felder); the occurrence, therefore, of a solitary species in Tropical America is somewhat remarkable. I doubt much, however, if our *S. jucunda* can be retained in the genus; the direction of the second subcostal branch of the fore wing being very different from that of the species with which it has been associated. The absence of lobe or angle from the outer margin of the hind wing is also a distinguishing character. I think it convenient to treat it provisionally as a subgenus (*Napeocles*); the relation of which to *Salamis* seems to be pretty nearly the same as that of *Siderone* to *Paphia*.

18. *Salamis* (*Napeocles*) *jucunda*, Hübn. Samml. Ex. Schm.

This fine insect, which, as already observed, has no near relative in Tropical America, is found only in swampy and thinned parts of the forest that clothes the delta-lands of the Amazons, in the neighbourhood of Pará, on the island of Marajó, and near the mouth of the Tocantins. It prefers the humid cacao-groves on the islands, settling on fallen fruits; its flight is low, but exceedingly swift.

Genus Eunica (Hübn.), Felder.

Syn. *Cybdelis*, Hewitson, Exot. Butt.
*Myscelia* and *Callianira*, Doubleday, in D. & H. Gen. Di. Lep.

With *Eunica* commences the series of typical Nymphalinæ—forest-butterflies whose larvæ, as far as known, have long-branched spines to their heads, besides the usual shorter-branched spines on the segments of the body. They are all strong in flight, although differing in habits and mode of progression, as explained in the introduction. The *Eunicæ* have no close relationship to any of the foregoing genera, but are intimately linked by intermediate forms with several of those which follow, such as *Callicore*, *Antigonis*, *Epicalia*, and so forth.

Like most of the typical Nymphalinæ, the males in the great majority of the species differ greatly in colours and in habits from the females; being adorned with glossy blue and violet hues on a black ground, whilst their partners are dull brown with white spots; and leaving their females in the woods to resort with crowds of their fellows to sport in the sunshine, or imbibe moisture from the margins of streams and muddy places.

19. *Eunica Phasis.* (Pl. IX. fig. 3).

*E. Phasis*, Feld. Faun. Lep. R. Negro Sup. no. 85.

Found sparingly in the interior of the country; on the banks of the Tapajos, and on the Upper Amazons and Rio Negro. The male in this species wears the plain livery of the females of the genus.

20. *Eunica Anna*, Cramer, 218 A. B.

Ega, Upper Amazons; rare. The species was confounded by Godart (whose error has been copied by subsequent authors) with *P. Maia* of Fabricius. The Fabrician species, as I have had an opportunity of ascertaining by the examination of the standard example in the Banksian collection, is quite different, and appears to be the ♀ of a South-Brazilian *Eunica* recently figured by Herrich-Schäffer as *Cybd. Nœris*. The description given by Fabricius of the underside of the hind wing is very clear, and not at all applicable to *P. Anna* of Cramer.

21. *Eunica Malvina*, n. sp. (Pl. IX. fig. 2, 2 *a*.)

♂. Expanse 2″ 10‴. Size and general appearance of *E. Anna* and *E. Careta*; differs in colours and in the shape of the palpi, which are short and closely applied to the forehead. *Above*: fore wing very slightly falcate, brown, with the basal half dull-slaty black, this colour extending along the costa to three-fourths the length of the wing, and not marked with a quadrate pale-brown spot as in *E. Anna*. Hind wing not prolonged at the anal angle, brown. *Beneath*: fore wing greyish, with the discal half dark brown, crossed by a belt of three pale spots; another shorter macular belt lies on the outer edge of the dark-brown patch, and is bordered by four black ocelli, with bluish pupils, exterior to which is a curved dark-brown streak. Hind wing purplish grey, with three white patches, two on the costa and one (more elongate) on the disk; there are three ocelli, the apical one of which is bipupillated, and shows the commencement of a fourth ocellus on its lower edge, the pupils being black, with blue central points; there are also the following reddish-brown marks:—a streak near the base, extending from the costa to the subcostal nervure; a large triangular spot in the middle of the costa, which is continued as a strongly waved line across the wing to the abdominal nervure;

two spots in the middle of the cell, and a streak over the lower disco-cellular nervule; and, lastly, a slender submarginal line along the outer border, thickened on the costa and at the anal angle. The palpi are short, and closely applied to the forehead; so that they are scarcely visible when the insect is viewed from above.

♀. Same beneath as the ♂, except that the white spots are larger and brighter. *Above* brown, apical half of fore wing black, crossed by two belts of large and clear-white spots, three in each belt. The palpi are of moderate length, pointed, and projecting in the usual way.

I found this species both on the Upper and Lower Amazons, but it was nowhere common.

22. *Eunica Concordia*, Hewits. Exot. Butt. Cybd. f. 1, ♂.

♀. Same shape as the ♂, and, *beneath*, the same in markings. *Above* lightish brown; apical half of fore wing dull black, with a brown spot near the hind angle, and crossed by two belts of white spots, three in each belt. Hind wing with a submarginal row of dusky lunules.

Banks of the Tapajos and the Upper Amazons; common at Ega.

23. *Eunica Mygdonia*, Godt. Enc. Méth. ix. 416. 208.

Godart states that his description applies to the female, this being the only sex known to him; but his expression, "cinq taches blanches peu distinctes," suits better for the fore wing of the male than that of the female. The species is of the same size as *E. Anna* and *E. Malvina*; but the produced apex of the fore wing is distinctly truncated, whilst it is rounded in those two allied forms. The following is a brief diagnosis of both sexes of *E. Mygdonia*.

♂. Wings, *above*, brown, with a violet tinge; hind wing with a dark submarginal line: fore wing apex produced and truncated, apical portion crossed by two belts of obscure pale spots, three spots in the inner, two (rather whiter) in the outer belt. *Beneath*: hind wing purplish brown, with chestnut-coloured markings disposed as in *E. Malvina*; the ocelli, four in number, arranged two and two, of a lighter hue, with dusky irides and faint purple-brown pupils.

♀. *Above* pale brown; apical half of fore wing darker, and crossed by two belts, each composed of three distinct white spots.

The chief distinguishing character of the species, next to the colour of the ♂, is the two pairs of hind-wing ocelli; the purple pupils of which are sometimes obsolete.

A common insect on the Upper Amazons, extending eastward as far as Villa Nova. Godart's example came from Brazil.

24. *Eunica Careta*, Hewits. Exot. Butt. Cybd. f. 11, 12, ♂.

♀. Same shape as the ♂. *Above* purplish brown, shining. Apical half of fore wing black, crossed by two macular belts of clear-white spots, three in each belt. *Beneath* much paler than the ♂; hind wing being of a light-ashy hue.

A very common species at Ega, Upper Amazons; but found nowhere else, as far as I am aware.

25. *Eunica Cœlina*, Godt. Enc. Méth. ix. 822.

This South-Brazilian species was one of the rarest of its genus on the Upper Amazons. I met with males only. Its flight is more rapid than that of its congeners.

26. *Eunica Cinara*, Hewits. Exot. Butt. Cybd. f. 2, ♂.

Upper Amazons, at Ega, Tunantins, and St. Paulo. The ♀ is unknown.

27. *Eunica Celma*, Hewits. Exot. Butt. Cybd. f. 3, ♂.

This very handsome species appears to be extremely rare; I met with a few examples only at Ega. The ♀ is unknown.

28. *Eunica Bechina*, Hewits. Exot. Butt. Cybd. f. 10, ♂.

♀. Same shape as the ♂. *Above* light purplish brown, shining. Apical half of fore wing crossed by two macular belts, each of three clear-white spots. *Beneath*, it differs from the ♂ only in being of a lighter hue.

Upper Amazons: an abundant species. It does not seem to be found in any other part of South America; but, from the great resemblance of the undersides, it appears very probable that *Eunica Evelide* of New Granada is a local modification of it*.

29. *Eunica Caresa*, Hewits. Exot. Butt. Cybd. f. 20, ♂.

One example only occurred of this species, namely, at Ega. Its metropolis seems to be the central parts of New Granada.

* This species has not yet been described; the following diagnosis may, therefore, be useful:—

*E. Evelide*, Boisduval, MS., ♂. *Above* dark or blackish brown, basal halves of the wings brilliant dark blue: apex of fore wing rather more produced than in *E. Bechina*; near it are two whitish spots. *Beneath*: fore wing ashy at the base, with a dusky cellular spot, apical part brownish ashy; rest of the wing black, spotless, except on the apical margin of the black part, where there is one white spot. Hind wing with the costal edge sinuated, much darker brown and more glossy than *E. Bechina*, but having precisely similar dark-brown marks and ocelli.

New Granada.

30. *Eunica Clytia*, Hewits. Exot. Butt. Cybd. f. 5, ♂ ; f. 6, ♀.

The commonest species of the genus at Ega ; in some years appearing by hundreds (almost all males) on the muddy margins of the river, in August and September.

31. *Eunica Veronica*, n. sp. (Pl. IX. fig. 1.)

♂. Same shape as *E. Clytia* (Hewits. *l. c.* f. 5), but a little larger. Wings, *above*, similar in colour, but of a richer and darker violet hue. *Beneath*: fore wing nearly the same in colour and markings as in *E. Clytia*, but wanting the dusky spot in the cell and the pale spot in the middle of the costa. Hind wing very different; being of an ashy hue with a violet tinge, and having only two pupils in the large anterior ocellus, both pale bluish, bordered with black, the ocellus itself being nearly circular, instead of irregularly oblong. The pupils of the two small anal ocelli are reduced to faint-brown points. The row of ocelli lies between two dark-brown undulating lines, and near the base of the wing are two thickish dark-brown streaks.

The range of this species lies further to the west than Ega, at which station I did not meet with it at all. It was very abundant near Tunantins and St. Paulo, in company with a small number of *E. Clytia*. Its distinguishing characters are quite constant in the scores of examples which I have inspected.

32. *Eunica pusilla*, n. sp. (Pl. IX. fig. 5, 5 *a*.)

♂. 1″ 7‴–1″ 9‴. *Above* dark blue, shining; outer portions of all wings dark brown, spotless: apex of fore wing very slightly produced and rounded. *Beneath*: fore wing with the basal third light brown, a distinct round black spot in the middle of the cell on the inner side of a triangular pale-ashy spot; apex ashy, with a thin brown line; rest of wing blackish, crossed by a line of three ashy spots. Hind wing light brown, with a violet tinge, and with very faint and thin darker lines, namely, three short ones towards the base, and two crossing the wing and enclosing the three obscure ocelli, the anterior one of which is bipupillated, the costal pupil pale blue, and the other black. The anal ocelli have minute dusky pupils.

♀. Same shape and markings (*beneath*) as the ♂. *Above* light brown; apical half of fore wing dusky, and crossed by two macular belts, one of three, the other of two, whitish spots.

The ♀ of this species has some resemblance to *P. Monima*, figured by Cramer (pl. 387. fig. F. G.); but the markings of the under surface of the hind wings and of the cell of the fore wings are very different. Cramer gives to his figure the antennæ of a moth, but explains in the text that the insect is tetrapod, and allied to *P.* (*Eunica*) *Orphise*; so that it probably belongs to this genus, notwithstanding its locality,

which he mentions with unusual particularity as "Della Mina, on the coast of Guinea."

33. *Eunica Orphise*, Cramer.

♀. *Papilio Orphise*, Cram. 42 E. F.

♂. *Cybdelis Castalia*, Hewits. Exot. Butt. Cybd. f. 4.

Upper Amazons; rare at Ega, but more abundant a few hundred miles further west, at St. Paulo. I met with only one female, namely, in the heart of the forest at Ega. Its close resemblance to the figure of Cramer leaves no doubt about the right name of the species.

34. *Eunica viola*, n. sp. (Pl. IX. fig. 4.)

♂. Very similar in shape and colour, *above*, to *E. Castalia* (Hewits. *l. c.* f. 4); fore wing rather more pointed. In size it is much larger, measuring 2″ 5‴. *Beneath*: fore wing slaty brown, with the apex reddish; the central part is dusky, with three ashy spots, and the cell has a distinct black spot. Hind wing reddish, with a bluish or slate-coloured gloss; the basal part has two short castaneous lines; the central line of the same hue is much inflected in the middle, owing to the anterior ocellus lying much nearer the cell than usual, and out of the line of the other two. The anterior ocellus is castaneous, with a paler iris, and two large pale-blue pupils bordered with black: the inner one of the two anal ocelli has a small pupil also of a pale-blue colour, but the outermost has only an obscure central spot.

♀. Same shape as the ♂. *Above* dark brown, with a light violet-blue tinge, especially near the base; apical part of fore wing rather darker, and crossed by two macular belts of a dull-whitish hue, each belt consisting of three ill-defined spots. *Beneath* same as the ♂, but much paler, the hind wing having a light-reddish hue.

This species has pretty nearly the same range as *E. Veronica*; the two being found in great numbers at Tunantins and St. Paulo. It also occurred further east, at Ega, but was there a very rare insect.

35. *Eunica Eurota*, Cramer.

♂. *Papilio Eurota*, Cram. 24 C. D.

♀. *Cybdelis Eurota*, Hewits. Exot. Butt. Cybd. f. 7.

A very abundant species in some parts of the Upper Amazons. I once saw it in flocks of many hundred individuals (males only), flying over a half-dry watercourse near the village of Caiçara.

36. *Eunica Amelia*, Cramer.

♀. *Papilio Amelia*, Cram. 136 C. D.

♂. Deep, rich black. Fore wing, *above*, with an oblique patch of glossy blue near the base: hind wing with a smaller spot of the same

colour at the base, and with a long pencil of dark-brown hairs at the commencement of the abdominal margin. *Beneath*, same as in Cramer's figure of the ♀.

Very abundant at St. Paulo, Upper Amazons; the males being attracted by scores to the dung of vultures, on the borders of the woods.

37. *Eunica Sophonisba*, Cramer, 295 A. B., ♀.

♂. Same shape as the ♀. *Above* rich deep black, with a spot near the hind angle of the fore wing and a broad outer border to the hind wing of a fine sapphire-blue colour. *Beneath* same as the ♀, except that the ground-colour is of a brighter metallic-green colour, and the central streak of the hind wing red, instead of yellow; the white belt of the ♀ being, of course, absent.

This most beautiful of all the species of *Eunica* resembles the *Callithea* in the colours and markings of its under surface; it is, however, a true *Eunica*, as shown by the swollen bases of the fore-wing nervures and the slenderness of the antennal club. It is an exceedingly wary insect, and one of the most difficult to capture; so that, although I saw many, I did not obtain more than three or four specimens. It occurred at St. Paulo, Upper Amazons, and also near the mouth of the Rio Negro.

Genus Libythina, Felder, Ein neues Lepid. p. 49.

This genus, although agreeing with *Eunica* in style of coloration, in neuration, and in the swollen bases of the costal and median fore-wing nervures, must be kept distinct on account of the great elongation of the palpi. The species constituting it differs greatly from all the *Eunicæ* in its habits and haunts, frequenting not the forest, but swampy meadows, where both sexes fly slowly about low bushes.

38. *Libythina Cuvierii*, Godart, Enc. Méth. ix. 171. 6.

*Eunica Hyperipte*, Hübn. Samml. Ex. Schm.

Found, in the Amazons region, only in the neighbourhood of Santarem and on the shores of the Lower Tapajos.

Genus Epicalia (Boisd.), Westwood, in D. & H. Gen. Di. Lep. p. 256.

This genus is very closely allied to *Eunica*, differing in structure only by the absence of inflation of the fore-wing nervures at their bases, and by the lower disco-cellular of the fore wing joining the median *at a distance from its terminal fork*, instead of *close to* the latter. *E. Capenas* seems to be intermediate between the two groups in respect of the position of the lower disco-cellular. The two genera form

distinct groups in regard to their style of coloration and habits; for whilst the *Eunicæ* are of tolerably uniform dark colours, with females of duller hue, and spotted with white at the apices of their wings, the *Epicaliæ* have brilliant and strongly contrasted colours in both sexes. The males of the *Eunicæ* resort in crowds to the banks of streams, retiring in the evening to the crowns of the forest-trees, where the females reside; but the *Epicaliæ* are true forest-dwellers, the males being seen sporting in gleams of sunlight which penetrate the dense shades, and the females wandering amongst the lower trees. I bred one species of this genus, *E. Acontius*: the larva is light green, with steel-blue head, and is armed with branched spines, two of which on the head are of great length and verticillate: the pupa is light green, varied with pink, and has the back of the thorax deeply excavated and irregular in outline. In form and armature the larva agrees with those of the *Callitheæ*. The sexes in one section of the genus (*E. Acontius* and allies) are so dissimilar in the form as well as in the colour of the wings, that they were long held to belong to different genera—quite an excusable error, for in no group does the divergence in appearance between male and female attain such great proportions. All doubt upon the subject, however, was removed by my capturing the sexes of two of the species *in copulâ*.

39. *Epicalia Capenas.*

*Cybdelis Capenas*, Hewits. Exot. Butt. Cybd. f. 16, 17.

Upper Amazons; in open sunny places in the forest. The female differs from the male only in being duller in colour, in two of the hind-wing ocelli having blue pupils, and in the fore wings being destitute of blue spots.

40. *Epicalia Hewitsonii*, Felder, Lepid. Frag. p. 13, pl. 5. f. 1.

Upper Amazons, at St. Paulo, and in the district lying near the Peruvian and Brazilian frontiers. It flies in company with *E. ancea* in moist parts of the forest.

41. *Epicalia Batesii*, Felder, Lepid. Frag. p. 57, pl. 10. f. 3.

The male (the only sex known) of this species differs from that of *E. ancea* in the inner margin of the blue belt being strongly curved outwards, and in the orange belt of the hind wings being much abbreviated and dilated in the middle. Two examples in my collection differ in the underside of the hind wings from *E. ancea*, and from the specimen of *E. Batesii* figured by Dr. Felder, in wanting the

third brown line accompanying the ocelli. The species is found, in company with *E. ancea*, at Pará.

42. *Epicalia ancea*, Linn.

♂. *Pap. ancea*, Linn. S. N. ii. 781. n. 184.
*P. obrinus*, Cram. 338 C. D.
♀. *P. obrinus*, Linn. Mus. Lud. Ulr. 255.
—— ——, Cram. 49 E. F.

This superb butterfly is abundant in swampy parts of the forest at Pará; and is found, in fewer numbers, throughout the Amazons Valley, with the exception of certain districts, such as the neighbourhood of Ega, where it is entirely absent. Its flight is exceedingly rapid; but it delights to settle on foliage where a ray of sunlight penetrates the shade.

43. *Epicalia Numilia*, Cramer.

♂. *Pap. Numilia*, Cram. 81 E. F.
♀. *P. Micalia*, Cram. 108 C. D.

Scarcely inferior to *E. ancea* in richness of colouring. The sexes are strongly contrasted, not only in colour, but in the form of the wings. The species occurs sparingly throughout the Amazons region as far as the head-waters of the Rio Negro, where Wallace observed it. It also occurs in New Granada, and in the central valleys of Guatemala.

44. *Epicalia Antinoë*, Godart, Enc. Méth. ix. p. 410, ♂.

The female on the upper surface resembles that of *E. Acontius*, being distinguished only by the second yellow macular belt of the fore wings consisting of three instead of four spots. Beneath it differs more considerably, being purplish in hue, and having a reddish stripe within the cell of the fore wings. The species occurred at Obydos, on the Guiana side of the Lower Amazons, and again at St. Paulo, on the Upper Amazons.

45. *Epicalia Acontius*, Linnæus.

♂. *Pap. Acontius*, Linn. Mant. i. 537.
*P. Antiochus*, Fab. Syst. Ent. p. 480.
*P. Eupalemon*, Cram. 143 B. C.
♀. *P. Chione*, Cram. 90 E. F.
*P. Medea*, Fab. Syst. Ent. p. 508. n. 273.

Common throughout the Amazons region and Guiana; but apparently not found much further northward, as it is not contained in

the large collections made by Mr. Osbert Salvin in Guatemala. The hind wings in the male have the costal portion greatly expanded, and the under surface of the fore wings furnished with a patch of long silky hairs—structures not observed in any other species of the genus.

46. *Epicalia Salacia*, Hewits. Exot. Butt. Ep. pl. 1. f. 2; pl. 2. f. 1, 2, 3, ♂ ♀.

Found only on the Upper Amazons, from Ega to the frontier of Peru.

Genus Temenis, Hübner, Samml. Ex. Schm.

*Paromia*, Hewits. Exot. Butt. text *Epiphile*, 2 (name preoccupied).

This genus is closely allied to *Epicalia*, *Epiphile*, and *Eunica*. It differs from *Epicalia* in the lower disco-cellular of fore wings joining the median very near to its terminal fork; from *Epiphile* by its naked eyes; and from *Eunica* by its very different style of coloration, and by the fore-wing nervures not being more dilated at their bases than they are in other genera. The third branch of the fore-wing subcostal is emitted at a long distance from the end of the cell. The species are forest-dwellers, and have the habit of descending to settle near muddy puddles in the pathways. The larva and pupa of *T. Ariadne* have been figured by Stoll. Both show much resemblance to those of *Ageronia Feronia*, the pupa having long appendages to the head, and the larvæ several hispid fleshy processes, besides the branched spines of head and body common to all the allied genera.

47. *Temenis pulchra*, Hewits.

*Paromia pulchra*, Hewits. Exot. Butt. *Epiphile*, pl. 2. f. 1, 2.

Found sparingly throughout the Amazons region. The female does not differ in colour from the male, except in being a little duller.

48. *Temenis Ariadne*, Cramer.

*Pap. Ariadne*, Cram. 180 E. F.
*P. Merione*, Fab. E. S. III. i. 125. 383.
*P. Agatha*, Fab. *l. c.* 134. 414.
*P. Liberia*, Fab. *l. c.* 135. 418.
*Nymphalis Liberia*, Godt. Enc. Méth. ix. 375. 84.
Var. *Temenis Merione* (pt.), Hübn. S. Ex. Schm.
Var. *P. Laothoë*, Cram. 132 A. B.
*Transformation*, Stoll, pl. 4. f. 4.

I believe Godart was right in treating the two forms figured by Cramer and the three slight varieties described by Fabricius as one and the same species. The insect varies so much that it is difficult to find two examples alike. 1. The palest examples (*Liberia*, Fab.)

are above of a tawny-ochreous hue, with a faint-brown belt near the apex of the fore wings, and a black speck on the hind wings. 2. Next to these are individuals having the apex of fore wings much darker (*Agatha*, F.). 3. Then follow others similar to the last, but with a darkish border to the hind wings, preceded by a dusky waved line (*Ariadne*, Cram.; *Merione*, F.). 4. A further variety is similar to this last, but has the apex of fore wings rufous, preceded by a broad blue-black belt. 5. A more extreme form is of a glossy tawny-orange colour, with fore wings marked like the last, but with the hind wings having the apical two-thirds of a rich blue-black colour (*Merione*, Hübn. pt.). 6. The furthest limit of variation in respect of darkness of colour is reached in *P. Laothoë* of Cramer, which has the hind wings wholly dusky black. I have a ♀ specimen from Demerara similar to Cramer's figure of *Laothoë*, except that the black apex of the fore wings has, in the middle, a large whitish spot, and the basal portion of the hind wings is fulvous. The wings are of the same shape in all these varieties, except that the hind wings vary in relative length; beneath they all have the same characteristic markings, but differ in the clearness of the design and intensity of hue.

None of these varieties are, strictly speaking, local modifications or races, for in all localities two or more of them are seen flying together; but this much may be said, that the handsome dark variety, no. 5, occurred only in the interior of the country on the Upper Amazons, mingled, however, with no. 4; whilst the palest varieties, 1 and 2, were found only on the Lower Amazons. Nos. 1 and 4 fly together in some parts of this latter region, and no. 2 occurs in New Granada.

### Genus Nica (Hübn.), Felder, Ein neues Lepid. p. 16.

The only character which distinguishes *Nica* from *Temenis* is the peculiar pattern of the under surface of the wings, which shows a nearer affinity to the following genus, *Pelia*. The neuration, shape of antennæ and palpi are nearly the same as in *Temenis*; but the facies of the two or three closely allied species which form the genus reveals no very close relationship to any of the preceding, and seems sufficient to warrant their generic separation.

#### 49. *Nica sylvestris*, n. sp.

Expanse 1″ 10‴, ♂ ♀. Very similar in size and general colour to *N. Flavilla* (Godt.) of South Brazil. Fore wings obtusely pointed, outer margin scarcely incurved in the ♂, straight in the ♀: *above* rich tawny, with a dusky streak across the end of the cell: the apex has a broad deep-

black border, dentated in the middle, which continues much diminished in breadth to the hind angle, and is ornamented near the apex with a clear-white rounded spot, sometimes accompanied by a second smaller one. Hind wings with the outer margin rounded and slightly festooned, the point at the end of the 3rd median branch being more prominent than the rest, especially in the female: *above* rich tawny, with a submarginal row of short blackish streaks, and two small black spots near the anal angle. *Beneath*: the wings are a little paler than above, and are crossed by a rufous bar reaching from the costa to the anal angle, besides a submarginal line (strongly flexuous) on the fore wings, and on the hind wings a second inner line of a rufous hue; all the wings have near their apices two bluish ocelli with large white pupils, the hind pair having, besides, two smaller ones near their anal angle. Body above tawny brown; antennæ black, ringed with white. The female does not differ in colours from the male.

Varies in the dusky and rufous lines, both of the under surface of the wings and the upper surface of the hind pair, being accompanied by lines or streaks of a plumbageous hue.

This pretty species was met with on the Upper Amazons, from Ega to St. Paulo, in sunny places in the forest, settling on pathways. It is allied to *N. Canthara* (Dbldy.) of Venezuela: the latter is said by Doubleday, in his very brief and insufficient description (Dbldy. & Hewits. Gen. p. 226), to have the flexuous lines of the under surface bordered by plumbageous lines; but it is possible the species varies in this respect, as does our *N. sylvestris*. According to specimens from Bogota which I have seen, *N. Canthara* differs from *N. sylvestris* in wanting the clear-white spot near the apex of the anterior wings.

Genus Pelia, Dbldy. D. & H. Gen. p. 229.

This small genus is distinguished from *Nica* chiefly by the first and second fore-wing subcostal branches being amalgamated for the greater part of their course.

50. *Pelia Lamis*, Cramer, 238 E.

Found in the same situations as *Nica sylvestris*. It has, however, a wider range, being distributed throughout the whole of the Amazons region and Guiana.

Genus Callicore, Dbldy. D. & H. Gen. p. 237.

The present genus is connected, through *Perisama* and *Cybdelis* (genera not found in the Amazons region), with *Eunica*, and through *Catagramma* with the *Callitheæ*. It is very closely allied to *Catagramma*; but differs in its eyes being hairy, instead of naked, and in its neuration; both first and second subcostal branches of the fore

wing being emitted after the cell, instead of one before and the other after as in *Catagramma*. The metropolis of the genus seems to be the hot valleys of Ecuador and New Granada, only one species being found in Guiana and the plains of the Amazons, and two in Southern Brazil.

51. *Callicore Clymena*, Cramer, 24 E. F.

Rather local, but abundant where it occurs; banks of the Cuparí (a branch of the Tapajos), Caiçara, and St. Paulo, Upper Amazons. It has rather a slow, sailing flight, and is attracted in numbers to moist puddles or filth on the skirts of the forest, flying when disturbed to the trees. The Guiano-Amazonian form differs somewhat from the one occurring at Rio Janeiro, which has received from Dr. Felder the name of *C. Janeira* (Verz. Macrolep. fregatt. Novara, p. 4). Further south, namely, in Rio Grande, in 30° S. lat., it is still further modified*.

Genus Catagramma (Boisd.), Dbldy. D. & H. Gen. p. 243.

52. *Catagramma Peristera*, Hewitson.

♂. *C. Peristera*, Hewits. Exot. Butt. Cat. f. 15.
Var. ♂. —— ——, ♀, Hewits. *l. c.* f. 16, 17.

Mr. Hewitson has figured a local variety of the male of the species as the female; which sex differs from the male in being dull in colour, and in having the hind wings, *above*, entirely of a dull-black hue, with a submarginal plumbageous line. The form represented by fig. 15 is confined to the Lower Amazons, the other (figs. 16, 17) being found only on the upper river. The males are abundant in some places, flying over and settling on filth of all kinds in the neighbourhood of huts and villages. The females I never met with, except in the shades of the forest, where they are sometimes seen in numbers on the trunks of trees.

53. *Catagramma Eunomia*, Hewits. Exot. Butt. Cat. f. 9–12.

Found only in the interior of the country, from St. Paulo, on the Upper Amazons, to the head-waters of the rivers flowing from the north.

* *Catagramma Clymena*, race *meridionalis*. Similar to *C. Janeira* beneath, except that the inner ring of the hind wings is pyriform instead of oblong; *above* it differs in entirely wanting the blue submarginal stripe of the hind wings. Reasoning from this amount of evident modification, there can be no doubt that the various allied species of Columbia have descended from the same stock—*C. Anna*, *Euclides*, *Marchalli*, *Astala*, *Gabaza*, and *Eluina*.

54. *Catagramma Cyllene*, D. & H. Gen. pl. 28. f. 3.

This species, which is closely allied to *C. Pygas* of South Brazil, occurred sparingly in several places both on the Lower and Upper Amazons.

55. *Catagramma Texa*, Hewits. Exot. Butt. Cat. f. 24, 25.

Banks of the Tapajos, near the first cataracts at Itaituba. My sole example differs from the figure given by Hewitson in the basal part of the fore wings, beneath, being tawny instead of crimson. The specimen figured is said to have been received from "Columbia."

56. *Catagramma Astarte*, Cramer.

♂. *P. Astarte*, Cram. 256 C. D. (1780).
♀. *C. Astarte*, Hewits. Tr. Ent. Soc. 1851, pl. 11.
Var. *P. Codomannus*, Fab. Sp. Ins. ii. 57 (1781).

I met with this species only at Obydos, on the Guiana side of the Lower Amazons, where it was abundant, settling on trunks of trees in the forest. The males agree closely with Cramer's figure, the only exception being that they are a little larger. In this latter respect they accord with the typical specimen of *C. Codomannus* of Fabricius, which I have examined, in the Banksian collection; but *C. Codomannus* differs in the two large black ocelli of the under surface of the hind wing being quite separated by the ochreous line between them.

*C. Astarte* appears to be widely distributed in Tropical America, being found near the sea-coast of Guiana, on the Guiana side of the Lower Amazons, up to Guia, on the Rio Negro, and in South Brazil, province of Espirito Santo. It varies much in size, the largest specimens I have seen being those captured at Obydos. All the examples agree with Cramer's figure in having a crimson stripe on the upper surface of the hind wing, extending to near the outer margin, in the under surface of the fore wing having crimson belts, and in the ends of the inner black circle of the hind wing touching the costa. The following, if not a distinct species, is a well-marked local variety of the *Astarte*-stock.

57. *Catagramma Miles*, n. sp.

♂. Expanse 2″. Wings, *above*, rich blue-black, fringe spotted with white; fore wing with a triangular spot at the base and a broad belt beyond the middle crimson, leaving in the middle a narrow black belt, which is generally attenuated or broken in its central part; near the apex is a small oblong orange spot: hind wing with a basal crimson stripe, some-

times very short, and never passing much beyond half the length of the wing, a few examples having besides three short submarginal bluish streaks near the hind angle.

*Beneath*: fore wing same colour as *above*, but rather duller, the costa yellow near the base; the apical part with a long ochreous streak and a submarginal bluish line, which latter extends halfway down the outer border. Hind wing black, with two circular bands of yellow, the outer circle interrupted on the costa and at the anal angle, the inner circle enclosing two large black ocelli, the upper with one, the lower with two large pupils: besides these, the outer part of the black band left between the two yellow circles has a row of nine bluish spots.

This species closely resembles *C. Astarte* in the colours of the under surface, the inner part of the black band left between the two yellow circles touching the costa, as in *Astarte*. It entirely replaces *C. Astarte* on the Upper Amazons, and is an abundant insect, especially near St. Paulo, where every day in the showery season numbers are seen even in the village, enlivening with their bright-crimson liveries the dull, muddy streets.

### 58. *Catagramma Cynosura*, Dbldy.

♂. *C. Cynosura*, D. & H. Gen. D. L. pl. 18. f. 2.

Expanse 2″ 3‴. ♂. *Above*: very similar in colours to *C. Miles*, differing only in the crimson stripe of the base of the hind wings being uniformly short, and ending in a point. *Beneath*: fore wing black, with a large basal spot and a broad belt beyond the middle yellow, slightly tinted with orange; the apical part has an ochreous streak and a bluish submarginal line. Hind wing black, with two circular bands of yellow, the outer circle interrupted at the costa and anal angle, the inner circle enclosing two large black ocelli, the upper with one, the lower with two bluish pupils: besides these, the outer part of the black band left between the two yellow circles has a row of nine bluish spots: the inner part of the black band left between the two yellow circles does not touch the costa, and the costal border has in the middle a large orange-yellow spot, as in *C. Amazona* (fig. 5 *a*, Pl. X.).

♀. *Above* black: fore wing with the basal two-thirds glossy ochreous, the black apical part having a short whitish streak. Hind wing dusted with ochreous at the base, outer margin with a submarginal row of bluish spots. *Beneath*: fore wing same as *above*, except that the apex and outer margin have a submarginal bluish line. Hind wing precisely the same as in the ♂.

Equally abundant on the Upper Amazons with *C. Miles*. It continues a common insect westward as far as the slopes of the Andes, and is also found far towards the south in Bolivia.

59. *Catagramma Amazona*, n. sp. (Pl. X. figs. 5, 5 *a*.)

Expanse 2″ 2‴. ♂. *Above* deep black. Fore wing with a small triangular basal spot and a narrowish belt (of uniform breadth) beyond the middle crimson, leaving in the middle a broad black belt; near the apex a short red streak. Hind wing with a broad straight crimson belt extending from the base to within a line of the outer margin near its middle.

*Beneath*: fore wing the same as *above*, except that the crimson parts are of yellow hue tinged with orange, that the red apical spot is replaced by a larger yellow streak, and that the apex has a short submarginal bluish line. Hind wing same colours as *C. Cynosura*; the inner part of the black band left between the yellow circles not touching the costa, and the costal border having a large orange patch.

♀. *Above* dull black. Fore wing with the basal two-thirds glossy ochreous, the black apical part having a broad whitish streak or oblong spot. Hind wing dusted with ochreous at the base, hind margin with a short bluish line near the anal angle. *Beneath*: fore wing same as *above*, except that the apex and outer margin have a submarginal bluish line. Hind wing the same as in the ♂, and as in ♂ and ♀ *C. Cynosura*.

This species, which has a similar relationship to *C. Cynosura* that *C. Astarte* has to *C. Miles*, but which seems to be a little more distinct from its relative than is the case with *C. Miles*, occurred only in the swampy forests near Pará, where I saw many of the males flying at a great height around the crowns of trees. It was very rarely that an individual of this sex came within reach, and I do not recollect to have captured more than one example; the females were more easily taken, as they frequently descended to the lower bushes or to the ground. Both sexes are very wary in their movements and have a rapid flight.

60. *Catagramma excelsior*, Hewits. Exot. Butt. Cat. f. 49, 50.

This most beautiful species of a beautiful genus seems confined to the interior of the continent, having been found only in the district of country lying between Fonte Boa and Nauta on the Upper Amazons. I captured the first example in an open grove near Tunantins, where it was flying from one tree-trunk to another, but was excessively wary and difficult to approach.

Genus Antigonis, Felder, Ein neues Lepid. p. 21.

Differs from the preceding genera by its abruptly clubbed antennæ, in which character it resembles *Hæmatera* and *Callithea*; it is distinguished from these by its small head and short palpi.

61. *Antigonis Pharsalia*, Hewits.

*Cybdelis Pharsalia*, Hewits. Exot. Butt. Cybd. f. 14, 15.

Found only at Ega; the males frequenting the moist sandy and muddy shores of the river, and mingling with the crowd of *Eunicæ*.

62. *Antigonis Felderi*, n. sp. (Pl. X. figs. 2 ♂, 3 ♀.)

♂. Same size and shape as *A. Pharsalia*. *Above* of a uniform light pinkish blue or *mauve* colour, fringe white: fore wing with three white spots arranged in triangle on the disk. *Beneath*: fore wing ashy, tip paler, with two dots and a submarginal line black, and costa near the base streaked with dusky; beyond the middle a broad black belt, with two large spots corresponding with the outer two of the upper surface: hind wing ashy white, variegated throughout with a multitude of short dusky streaks.

♀. Same shape as the ♂. *Above*, coloured like the females of *Eunica*; light brown, basal parts sprinkled with grey atoms, and apical half of fore wing black, with four large white spots arranged obliquely in quadrangle. *Beneath*: fore wing ashy, tip paler, with two black dots, and a submarginal line black, and costa near the base streaked with dusky; beyond the middle a broad black belt, with two large spots corresponding to the outer two of the upper surface, preceded outside the black belt by two others corresponding with the inner two: hind wing ashy white, variegated with a multitude of short dusky streaks.

This elegant species entirely replaces *A. Pharsalia* at St. Paulo, 400 miles to the west of Ega. It delights to settle on the moist margins of brooks in the forest, and is of very nimble flight.

Genus Callithea (Boisd.), Westwood, in D. & H. Gen. p. 258.

63. *Callithea Sapphira*, Hübn. Samml. Ex. Schm.

This most richly coloured butterfly appears to be confined in its range to the dry woods near Santarem, on the eastern side of the mouth of the Tapajos. Further westward I never saw a specimen; and to the south its area appears to be equally limited, as I did not find it further than twenty miles from the mouth of the river. It may, however, extend over the country to the east, that part of this region not having yet been explored. The species appears to have two broods in the course of the year, the first in October, and the second in February and March; but the first fails if the season be a dry one. In March it abounds, at least in some years, the woods positively swarming with the superbly adorned creatures, the two sexes being in about equal number, and the glowing sapphire and orange liveries imparting wonderful liveliness to the sylvan scenes. When very abundant, especially in gleamy showery weather, they issue from

the woods, and are seen in the streets of the town, attracting the notice of the inhabitants. The caterpillar is armed with branched spines like that of the *Epicaliæ*, two much longer than the rest rising from the head; the under surface is pale yellow, the upper black with five broad bands of vermilion. The pupa has the dorsal face of its thorax deeply emarginate, and is of a pale-red colour.

64. *Callithea Batesii*, Hewits.

♂. Hewits. Tr. Ent. Soc. vol. i. n. s. 1851, pl. 11. f. 2.
♀. Hewits. Exot. Butt. Callith. f. 1 & 4.

This has a wide range in the interior of S. America, being found at Aveyros, on the Tapajos, and at Ega, on the Upper Amazons. Its habits are similar to those of *C. Sapphira*, but I never found it in numbers.

65. *Callithea Markii*, Hewits. Exot. Butt. Call. f. 2, 3, 5, 6 (♂ ♀).

*C. Markii* has a wider range than the preceding, being found from Ega to the interior of New Granada, near Bogota. The examples met with at Ega all belong to the variety represented in figures 2 & 6 on Mr. Hewitson's plate, the remarkable modification, fig. 5, not occurring in this part of the range of the species. It is more abundant than *C. Batesii* at Ega, and sometimes escapes from the forest to join the crowds of butterflies of other genera at the damp margins of water in open sunny places.

66. *Callithea DeGandii*, Hewits. Exot. Butt. Call. f. 7, 8.

I saw one example of this species at St. Paulo: this seems to be the eastern limit of its range, the examples sent to England by M. De Gand being taken a little further west in Peru.

67. *Callithea Leprieurii*, Feisthamel.
Feisth. in Guérin's Mag. de Zool. pl. 122.

This is the most widely distributed species of this handsome genus, being found from the interior of French Guiana to the slopes of the Andes, in Ecuador. I met with it at many places on the banks of the Amazons, both on the north and south sides of the river. It was abundant, however, only at Obydos and Villa Nova, both of which districts lie near to Guiana. Its time of appearance in the imago-state is the months of October and November. The caterpillar is armed precisely like that of *C. Sapphira*, but it is differently coloured, the dorsal surface being black, with five broad bands of a light greenish-blue tint.

Genus Callizona, Dbldy. D. & H. p. 246.

68. *Callizona Aceste*, Linnæus.

*Papilio Aceste*, Linn. S. N. i. 479. 127 (1758).
—— ——, Cramer, 121 E. F.
*Larva and pupa*, Stoll, t. vi. f. 6.

The larva of this species, according to Stoll's figure, has shorter spines on the head than is usual in this group. The pupa has long appendages, like those of the *Ageroniæ*. The insect is a common one in the Amazonian forests, and is always found about the trunks of trees, settling frequently on the bark, with its wings held in a perpendicular position. It is also found in Guiana and Venezuela.

Genus Gynecia (Boisd.), Dbldy. D. & H. Gen. p. 248.

This genus, although having wings so different in shape from those of *Callizona*, is undoubtedly most closely related to it. The larva, according to Stoll, is spined in a similar way, but the pupa has very short cephalic appendages.

69. *Gynecia Dirce*, Linn.

*Papilio Dirce*, S. N. ii. 778. 177.
—— ——, Cramer, 212 C. D.
*Larva and pupa*, Stoll, pl. 2. f. 3, 4.

Found in the same situations as *Callizona Aceste*, settling on the trunks of trees in the same way. It appears to have a wider range, being found as far north as Guatemala and Honduras, and in the West India Islands.

Genus Ectima, Dbldy. D. & H. Gen. p. 227.

70. *Ectima Liria*, Fabr. E. S. III. i. 239. 747.

Found throughout the Amazons region in company with *Gynecia Dirce*, and settling, like it, on the trunks of trees, but lying with its wings flat, in the manner of the *Ageroniæ*.

71. *Ectima Iona*, Hewits. Ann. Nat. Hist. vi. p. 434.

Distinguished from *E. Liria* by its large size, the purple gloss on its wings, and the absence of ocelli at tip of fore wings. Rather more common than *E. Liria*; its habits are the same.

Genus Pandora (Boisd.), Dbldy. D. & H. Gen. p. 300.

72. *Pandora prola* (Boisd.), Dbldy. & Hew. Gen. pl. 43. f. 5.

This superb insect was first found in New Granada, on "Mount

Tolima." In the Amazons region it inhabits the moist and lofty forests of the plains, but only in the western portion of the region towards the Andes, commencing at the village of St. Paulo de Olivença. It descends into sunny openings, and into open grounds on fine days, entering the houses in villages, and settling on the whitewashed walls, with its wings sometimes expanded and sometimes erect. Its flight is extremely rapid and bold. Dr. Felder has received it from the Upper Rio Negro; so that its range comprises a large area under the equator to the east of the Andes, but near their eastern slopes.

73. *Pandora regina*, n. sp.

♂. Expanse 3″ 7‴. Similar to the figure given by Mr. Hewitson (Ex. Butt. *Pandora*, f. 4) as representing the ♀ of *Pandora Procilla*, but differing in the glossy-green band of the hind wing being twice the breadth, and followed by a flexuous green submarginal line; in the corresponding band of the fore wing being bordered on the inner side by a thick black line, and in the apical part of the same wing being crossed by a glossy-green line.

*Above* greenish blue: fore wing with the outer portion deep black (the colour widest at the apex), crossed by a subapical glossy-green line; a broad belt of glossy green crosses the wing a little beyond the middle, the inner edge of which is irregular and accompanied by a thick black line, four narrow lines and (near the apex) a single broader one crossing the cell, the three basal ones of which continue to the submedian nervure. Hind wing crossed by a broad glossy-green belt which becomes narrower towards the anal angle, and is there marked with two black spots, its inner edge accompanied by a zigzag black line, thickest towards the costa; the broad black outer border is traversed by a flexuous glossy-green line; the cell is crossed by two black lines, one very slender across the middle, and the other much thicker, lying over the disco-cellular nervules.

*Beneath*: fore wing black, apex reddish brown; cell greenish, crossed by six black lines; a broad light-green belt, white in the middle, traversing the wing towards the apex. Hind wing vermilion, shaded with dusky towards the apex; cell and space between costal and subcostal nervures crossed with two or three black lines, a similar but longer line crossing middle of the wing, and another running parallel and near to the outer border, the two latter enclosing a row of six dusky ocelli with minute black pupils. Antennæ extremely long (13 lines), the apex forming a very slender club.

This magnificent species only occurred once, namely, at St. Paulo, in a sunny nook in the forest, where I found it settled on the trunk of a tree, wings erect.

[To be continued.]

XVI.—*Catalogue of the* Dytiscidæ *and* Gyrinidæ *of Australasia, with Descriptions of new Species.* By the Rev. Hamlet Clark, M.A., F.L.S.

Part III.

I propose in this paper to examine one of the sections of Gyrinidæ, the genus *Enhydrus*, so far, that is to say, as its Australian representatives. The genus itself was founded on a magnificent species peculiar to Brazil, *E. sulcatus*, Wied., which is the only species foreign to Australia. It is seldom, indeed, that links are met with connecting Australia with South America, and so we are not surprised to notice that this connecting link is not of the closest. Undoubtedly, as to all important characters, *E. sulcatus* may be placed in the same group as the following species; and yet how unlike the insects are in general form and appearance! *E. sulcatus* is large, peculiarly depressed, and broadly ovate: the Australian species are entirely different, considerably smaller (some not more than one-third of the size), narrower, and more parallel.

The genus is closely connected with *Gyrinus* by the presence of a scutellum: it is separated from it simply by its general form, and by the much greater length (in proportion) of the anterior legs. Dr. Aubé seeks to establish a distinction also in the length of the labial palpi: this sometimes obtains, but seems, so far as it has any value, to be a specific rather than a generic character. The diagnosis of Professor Lacordaire is based chiefly, if not entirely, on the length of the anterior tibiæ; and this, with a consideration of the general form, will, I think, hold good: the outline (if we may except the Brazilian type, *E. sulcatus*) is more parallel and more elongate than that generally of *Gyrinus* proper. I include in the group (following M. Lacordaire) *E. oblongus* of Aubé, but this is the extreme limit of the form: it is just possible that ultimately this last species may be separated from *Enhydrus* (in which it was placed by Brullé), and again reunited, as intended originally by Boisduval, with *Gyrinus*.

If we accept the definition of the genus as thus laid down, that is to say, scutellated Gyrinidæ with elongated anterior legs and narrow subparallel forms, we find that the Australian species group themselves naturally, and yet not without manifest connecting links, with *Gyrinus*, as *E. oblongus*, Reiche. The characters which are of apparently special value in the separation of the species of this group *inter se* are (of course) the outline of form, the depth and determinateness of the channels of the elytra, the size and figure of the scutellum, and the sinuations of the apical part of the elytra. None of these

appear to be sexual, and in my judgment they sufficiently separate the examples which I have been able to examine into six species: these are from my own collection, together with others kindly forwarded to me by my friends Mr. Bakewell, Mr. Grut, and Mr. Wilson, of Adelaide.

*Synopsis of the Genus* Enhydrus.

**A. Elytris haud striatis, lævigatis.**

1. *E. Howittii*, n. sp.

**B. Elytris striatis.**

a. *Elytrorum apicibus rotundatis.*

2. *E. Reichii*, Aub., Germ.

3. *E. assimilis*, n. sp.

b. *Elytrorum apicibus sinuatis.*

4. *E. latior*, n. sp.

5. *E. rivularis*, n. sp.

c. *Elytrorum apicibus dentatis.*

6. *E. oblongus*, Boisd.

The above (with *E. sulcatus*, Wied., which belongs to the section **B**, a) constitute the whole of the group as at present known to entomologists.

Enhydrus, Laporte.
(*Epinectus*, Esch. MS.)

**A. Elytris haud striatis.**

1. *E. Howittii*, n. sp.

*E.* oblongo-ovalis, subdepressus, nigro-æneus, impunctatus, nitidus; elytrorum apicibus subrotundatis, haud sinuatis, haud dentatis; corpore subtus nigro; abdomine pedibusque rufo-nigris.

Long. corp. $5\frac{1}{2}$ lin., lat. $2\frac{1}{2}$–$2\frac{3}{4}$ lin.

Oval, subelongate, decidedly broader in proportion, as well as larger, than *E. Reichii*, Aub., subdepressed; impunctate, of a shining metallic æneous black: *thorax* with the borders of a bluish-green colour; in front deeply excavated; the sides are constricted anteriorly and slightly rounded: *elytra* oval, sufficiently broad; the apex is rounded or subrounded in form; the colour of the lateral margins is narrowly bluish green, that of the margin at the apex narrowly of a bright copper-colour; the surface is impunctate, unmarked by any longitudinal striæ, glabrous; when viewed under a high power, the surface is covered with very minute transverse striæ: the *underside* of the body is black: the *abdomen* and posterior *legs* rufo-fuscous.

*E. Howittii* is a very distinct species, remarkable as being the only one of the group that has the elytra unmarked by the deep longitudinal striæ that characterize the genus. A slight variation may

be traced in the rounded form of the apex of the elytra: in one example there is a minute trace of a dentation at the end of the margination: in all examples the apices closely approach each other.

I have some doubts as to whether this species more truly belongs to this genus or to *Gyrinus*; it partakes of the characters of both. I decide to admit it on the ground that *E. oblongus* is admitted, the length of the anterior tibiæ of which corresponds with that of those of this species.

Moreton Bay is the only locality at present recorded. In the collections of Mr. Bakewell and the Rev. Hamlet Clark.

**B. Elytris striatis.**

a. *Elytrorum apicibus rotundatis.*

2. *E. Reichii*, Aubé, Species Gén. 654 (1838).

I subjoin the diagnosis of this species, inasmuch as M. Aubé's description (though amply sufficient in 1838, when the only species with which it could be contrasted was *E. oblongus*, Boisd.) will in no degree separate it from the species which have in late years been sent home by collectors. I take the liberty of asking our modernized—and in good truth somewhat revolutionary—entomological friends, who seek to rebel against the time-honoured laws of priority of nomenclature, whether I am not justified in *retaining* the *name* of this species, though with a confessedly imperfect description; or whether, on the other hand, it would be lawful for me to sweep away a tradition, and discard a name given by M. Aubé, merely because it does not satisfy their self-imposed postulate. Most truly, M. Aubé's definition of the species has not sufficiently discriminated between it and all other cognate species which then remained to be discovered! It is even to us, in these days of the infancy of entomology, insufficient; nay more, there are grounds for the assertion by any critic that the description (with its accompanying French amplification) is *in itself imperfect*! but surely this gives me no right whatever to alter the name according to my own will. Science is not a series of brilliant revolutions; it consists rather of quiet and commonplace progress: it is conservative, not despotic. To change the name before us would (notwithstanding the crotchets of our friends) not only be to be wanting in justice and in courtesy to the respected founder of the present name, but it would infallibly secure the reversion of the decision of this paper by future students of the group.

The following description, amended from Aubé, will suffice to separate the species from all others known up to this time:—

*E.* oblongo-ovalis, depressus, nigro- vel viridi-cyaneus; elytris 8-sulcatis, sulcis interioribus aliquando omnino obsoletis, marginibus viridibus; elytris apicem versus minute dentatis, ad apices rotundatis, apicibus ipsis haud longe distantibus; scutello triangulari, minuto; corpore subtus nigro-æneo; abdomine ad apicem ferrugineo; pedibus posterioribus rufo-flavis, anticis nigro-æneis, tarsis (tibiisque ad apicem) fusco-rufis.
Long. corp. 5 lin., lat. $2\frac{1}{2}$ lin.

This species closely resembles *E. assimilis*, from which it may be separated by its *more minute* and more regularly triangular scutellum and by the fusco-flavous coloration of the last segment of the abdomen.

Examples have been found near Melbourne and also near Adelaide.

### 3. *E. assimilis*, n. sp.

*E.* ovalis, subdepressus, viridi-æneus; elytris utrinque 8-sulcatis, apice rotundato; scutello haud parvo; corpore subtus nigro-metallico; abdominis segmento ultimo rufo-nigro; pedibus rufo-nigris, posterioribus rufis.
Long. corp. 6 lin., lat. $2\frac{1}{2}$ lin.

Suboval, rather broader behind the middle, a trifle broader than *E. Reichii*, of a bright-green colour throughout: *head* impunctate, when seen under a high power covered with minute transverse or oblique striæ, arranged irregularly: *thorax* of the same colour, the posterior margin being very narrowly of a dark copper-colour, and the lateral marginations sometimes black; the same minute striæ as on the head are perceptible, but more minute: *elytra* with eight striæ, obsolete at the suture, and becoming, as they approach the margin, deep channels; the colour of these striæ, when viewed under a strong lens, is of a bright red copper-colour; between the striæ the surface is transversely marked by very minute lines: *abdomen, underside, anterior legs*, and *antennæ* metallic black: *posterior legs* rufo-fuscous.

This species is very nearly related to *E. Reichii*; it is, I think, distinct; it is *somewhat* larger when a series of each are viewed together, and the size of the scutellum, distinctly larger, well separates the two.

These species, *E. Reichii* and *E. assimilis*, differ from all others in having the lateral margin of elytra and thorax in not absolutely the same line; a very slight angle is formed by their conjunction: in all other species the line is absolutely straight.

I received this species from Mr. Stevens in 1855, from a collection forwarded to him from Australia.

### b. *Elytrorum apicibus sinuatis.*

### 4. *E. latior*, n. sp.

*E.* oblongo-ovalis, sat parallelus, nigro-æneus, nitidus; thorace lato, late-

ribus subparallelis; elytris thorace sublatioribus, lateribus sat late marginatis, ad apicem sinuatis, apicem versus *sub*dentatis, apicibus ipsis penitus conjunctis, striis ad suturam haud obsoletis, ad latera latis et profundis; corpore subtus nigro; pedibus nigris, posticis rufo adumbratis.
Long. corp. 6–6½ lin., lat. corp. 3 lin.

A much smaller and comparatively broader insect than *E. rivularis*; the colour is of a less piceous, more metallic tinge; the apex of the elytra is rather more deeply emarginate; the elytra touch each other at the suture almost to the extreme apex.

It is a trifle larger than *E. oblongus* of Reiche, and may be separated from it by its rounded emarginations at the apex of the elytra.

I have received specimens from Moreton Bay. Mr. Bakewell's collection contains examples from the same district.

A form closely allied to this, but which may possibly prove to be distinct, is in my cabinet: it has a manifestly smaller scutellum, is not so large as the larger examples of *E. latior*, and broader than the smaller form, and appears, so far as I can infer from four examples, to be uniform in character.

*E. latior* is a perplexing species: after much examination, I believe that it will hold good as defined above; and that it is liable, more than its congeners, to some little variation in size.

5. *E. rivularis*, n. sp.

*E.* oblongo-ovalis, valde depressus, æneo-, haud nigro-metallicus, ad margines elytrorum thoracisque viridi-æneus; capite et thorace lævigatis, subtilissime vermiculatis; scutello haud parvo, triangulari; elytris 8-striatis, externis 1ma, 2nda et 3tia profundis, 8va ad suturam penitus obliterata; elytris apicem versus dehiscentibus, ad apicem emarginatis, haud acuminatis; corpore subtus piceo; pedibus rufo-nigris, anticis piceis vel æneo-piceis.
Long. corp. 7–8 lin., lat. 3–3½ lin. Ad apicem corporis 1 lin. elytris haud defensa.

A striking and handsome species, which manifestly on some occasions has been found in abundance, and has been sent to England by Mr. Wilson and other friends of Mr. Bakewell.

When compared with other Australian species, it is distinctly larger than all, of a *dark* metallic lustre, the margins both of thorax and elytra being green, and this margin being in a continuous line, not slightly angulated at the junction of the thorax and elytra as in the species *Reichii* and *assimilis*. There appears to be in it no tendency to variation either in structure or colour. The scutellum (the size of which appears to have an importance in the group) is uniform; and, in all the examples before me from Mr. Bakewell's cabinet and my

own, there is in both sexes a considerable and equal protrusion of the last or nearly two last abdominal segments beyond the apex of the elytra.

The only locality that I know of is Victoria. The name which I have adopted is that which I have received with it as its traditional name.

A small example of a deep *dull black* colour, with the scutellum a trifle smaller, and the apical segment of the abdomen tinged with rufous, may possibly constitute a distinct species.

c. *Elytrorum apicibus dentatis.*

6. *E. oblongus*, Boisd. Voy. de l'Astrol. p. 52.

*E. australis*, Brullé, Hist. Nat. des Ins. p. 237.

*E. oblongus*, Aubé, Spec. Gén. Col. vi. p. 653.

Long. corp. 7–7½ lin., lat. 3 lin.

A common species in Australia, to be recognized among present known species by its extreme apex being angular, not rounded, and the sinuations at the apex of the elytra being produced into a distinct sharp spur—a modification which closely connects the species with the genus *Gyrinus*. In the collections of the British Museum, Mr. Bakewell, Mr. Waterhouse, and the Rev. H. Clark.

Of the six species which are here characterized, there are but two which absolutely and manifestly attain to all the generic characters of *Enhydrus—E. vivularis* and *E. latior*; the other four species I place in the same group as being on the whole *more* nearly related to it than to the genus *Gyrinus*, and inasmuch as I have for doing so, with reference to two out of the four, the excellent authority of M. Aubé.

I possess in my cabinet, and I believe Mr. Bakewell has also, examples which are not referable clearly to any of these species. In a few years, when the increasing number of entomologists in Australia is still further increased, we shall, I have no doubt, add still more to the list of this interesting Australian genus.

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XVII.—*Descriptions of new Genera and Species of* Eumolpidæ. By J. S. Baly.

*Bromius Philippinensis.*

*B.* oblongus, viridi-cæruleus, nitidus, violaceo-micans, supra pilis brevibus suberectis fuscis vestitus; thorace subgloboso, subcrebre punctato; elytris subcrebre punctatis, infra basin leviter transversim impressis; tibiis intermediis extus infra medium late emarginatis; corpore subtus pilis

cinereis adpressis sat dense vestito; antennis subfiliformibus, gracilibus, extrorsum nigris.—Long. 4 lin.

*Hab.* Philippine Islands.

I have adopted Chevrolat's name *Bromius* for Stål's genus *Calomorpha*, that name having been previously used in Lepidoptera.

*Bromius Hebe.*

*B.* breviter ovatus, valde convexus, læte cæruleus, nitidus, crebre punctatus, supra pilis erectis cinereis et nigris inter se intermixtis vestitus; elytris infra basin obsolete transversim impressis, humeris prominulis; utroque plagis magnis duabus, prima baseos, a margine exteriore fere ad suturam et a basi ad paulo ante medium producta, secunda subapicali, trigonata, igneis.—Long. $3\frac{1}{2}$ lin.

*Hab.* Siam.

*Bromius evanescens.*

*B.* breviter oblongo-ovatus, valde convexus, cupreus, subcrebre punctatus, supra pilis plurimis erectis instructus; corpore toto pilis adpressis sericeis concoloribus dense vestito, his diverse nitentibus et (aspectu mutato) plagas cupreo-nitescentes formantibus.—Long. $3\frac{1}{2}$ lin.

*Hab.* Penang.

*Bromius Bohemani.*

*B.* oblongus, valde convexus, cupreus, nitidus, supra pilis erectis fuscis vestitus; capite thoracisque apice lineaque depressa longitudinali disci rugosis; elytris irregulariter punctatis, humeris elevatis, linea lata depressa, circum spatia basilaria singula circumducta, foveisque nonnullis magnis, excavatis, crebre rugosis, albido- vel aureo-tomentosis, disco positis, obscure aureis.—Long. 3–$3\frac{1}{2}$ lin.

*Hab.* Port Natal.

*Chrysolampra Mouhoti.*

*C.* elongata, subcylindrica, læte viridi-ænea, nitidissima; antennis obscure fulvis; thorace remote punctato; elytris infra basin transversim depressis, subcrebre fortiter punctatis, punctis apicem versus in striis longitudinalibus confuse dispositis, interspatiis lævibus, iis disci exterioris transversim elevato-reticulatis.—Long. 4 lin.

*Hab.* Siam.

Genus Clisithera.

*Corpus* anguste oblongum, parallelum, valde convexum. *Caput* perpendiculare; *antennis* robustis, compressis, basi et apice attenuatis; *oculis* intus vix sinuatis. *Thorax* transversus, latitudini elytrorum æqualis, lateribus marginatis. *Elytra* irregulariter punctata. *Pedes* robusti, simplices; *unguiculis* appendiculatis. *Prosternum* elongatum, postice late dilatatum, margine antico epimera continuato, epimeris anticis trapeziformibus, angulo antico exteriore ad thoracis angulum non producto.

*Clisithera nigricornis.*

*C.* elongata, parallela, valde convexa, nitida, castanea; elytris (basi extrema excepta), tibiis tarsisque nigris; thorace transverso, latitudini elytrorum æquali, irregulariter subremote punctato; elytris subcrebre punctatis, punctis prope suturam ante medium in striis confusis dispositis.—Long. 4–5 lin.

*Hab.* Amazons.

Genus Chrysodina.

*Corpus* breviter ovatum, valde convexum. *Caput* thoraci fere immersum, perpendiculare, facie inferiore producta; *mandibulis* robustis; *antennis* brevibus, robustis, articulis quinque ultimis dilatatis, clavam gracilem formantibus; *mento* quadrato-emarginato. *Thorax* transversus, basi elytrorum latitudini fere æqualis, lateribus integris, rotundato-angustatis, antice declivibus, margine antico medio paullo antrorsum producto. *Elytra* punctato-striata, lateribus basi obsolete lobatis, limbo inflexo obliquo. *Pedes* robusti, simplices; *unguiculis* appendiculatis. *Prosternum* apice epimeræ margine continuatum, basi truncatum; *epimeris* anticis transversis, angulo antico exteriore ad thoracis angulum producto.

*Chrysodina igneicollis.*

*C.* breviter ovata, valde convexa, nigra, nitida; capite, thorace scutelloque igneis; elytris tenuiter punctato-striatis, cæruleo-metallicis.—Long. $2\frac{1}{2}$ lin.

*Hab.* Ega.

Genus Lepronida.

*Corpus* oblongum, valde convexum, dorso elevato-tuberculatum. *Caput* fere immersum; *antennis* gracilibus, subfiliformibus; *mento* concavo-emarginato. *Thorax* dorso gibbosum, lateribus irregulariter dentatis. *Elytra* thorace paulo latiora, tuberculata. *Pedes* robusti; *tibiis* curvatis, compressis; *unguiculis* appendiculatis. *Prosternum* fere quadratum, apice epimeræ margine continuatum; *epimeris* anticis trapeziformibus, angulo antico exteriore extrorsum vix producto.

*Lepronida Batesii.*

*L.* oblonga, valde convexa, nigra, nitida; antennis basi obscure fulvis, articulis 8–9, albis; thorace concinne elevato-rugoso, valde gibboso, gibbere longitudinaliter canaliculato; elytris fortiter et irregulariter tuberculatis.—Long. $2\frac{1}{2}$ lin.

*Hab.* Amazons.

Genus Corycia.

*Corpus* elongatum aut oblongum, convexum. *Caput* perpendiculare, thoracis margine producto (visum a tergo) fere obtectum; *antennis* gracilibus, filiformibus; *mento* quadrato-emarginato. *Thorax* transversus, elytrorum latitudini æqualis aut vix angustior, lateribus rotundatis, integris aut obsolete angulatis, antice declivibus, margine antico medio paulo antrorsum producto. *Elytra* parallela, irregulariter punctato-

striata. *Pedes* simplices: *unguiculis* appendiculatis. *Prosternum* basi concavo-emarginatum, apice margine epimeræ continuatum; *epimeris* anticis trapeziformibus, angulo antico exteriore ad thoracis angulum non producto.

Type, *Corycia funesta*, Baly.

*Corycia funesta.*

*C.* elongata, parallela, convexa, nigro-picea, subnitida; antennis obscure fulvis; thorace elytris latitudine æquali, lateribus rotundatis, obsolete angulatis, disco irregulariter subremote tenuiter punctato; elytris subcrebre tenuiter punctato-striatis.—Long. $3\frac{1}{2}$–4 lin.

*Hab.* Amazons.

Genus Cychrea.

*Corpus* oblongum aut subelongatum, convexum. *Caput* exsertum, perpendiculare, subelongatum; *antennis* filiformibus; *mento* quadrato-emarginato. *Thorax* elytris angustior, lateribus rotundato-angustatis, integris, antice non declivibus, margine antico antrorsum non producto. *Elytra* parallela, irregulariter aut confuse punctato-striata. *Pedes* simplices; *unguiculis* appendiculatis. *Prosternum* basi profunde emarginatum, bilobatum, antice epimeris anticis continuatum; *epimeris anticis* trapeziformibus, angulo antico ad thoracis angulum non producto.

*Cychrea histrio.*

*C.* subelongata, convexa, fulva, nitida; capite, metasterno, tibiis extus, tarsis elytrisque nigris, his confuse punctatis, subopacis, apice fulvo, singulatim fascia prope medium punctisque tribus, horum duobus infra basin tertioque longe pone medium positis, flavis; antennarum apice albo.—Long. $3\frac{1}{2}$ lin.

*Hab.* Amazons.

Genus Eriphyle.

*Corpus* oblongum, convexum. *Caput* exsertum, perpendiculare; *antennarum* articulis quinque apicalibus modice dilatatis, clavam indistinctam plerumque nigram formantibus. *Thorax* basi elytris vix angustior, apicem versus angustatus. *Characteres cæteri* ut in genere præcedente.

Type, *Eriphyle unimaculata*, Baly.

*Eriphyle unimaculata.*

*E.* oblonga, postice vix angustata, pallide fulva, nitida, antennarum clava elytrorumque plaga subapicali communi nigris.—Long. $2\frac{1}{2}$–3 lin.

*Hab.* Amazons.

*Chrysochus Mouhoti.*

*C.* oblongus, valde convexus, metallicus nitidus, subtus viridi-cæruleus; pedibus viridibus; capite cæruleo; antennis nigris, basi fulvis; thorace elytrisque viridi-æneis, illo distincte punctato, basi cæruleo, elytris sub-

confuse punctato-striatis, viridi-æneis, infra basin vix transversim depressis, margine laterali plagaque trigonata ante medium cæruleis.—Long. 4½ lin.

*Hab.* Siam.

*Platycorynus Parryi.*

*P.* subelongatus, valde convexus, metallicus, nitidus, subtus cæruleus, supra viridi-aureus; antennis obscure purpureis, basi obscure piceis, clava modice dilatata; elytris infra basin obsolete transversim depressis, subcrebre punctatis, punctis prope suturam in striis indistincte bifariam dispositis, ad latera confusis; linea marginali vittaque lata suturali, postice valde angustata, purpureis.—Long. 4 lin.

*Hab.* China.

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## XVIII.—*Descriptions of some New Australian* Longicornia.

By Francis P. Pascoe, F.L.S.

Some months ago I described, in the Transactions of the Entomological Society, sixty new species of Australian Longicornia. Through the kindness of Fred. Geo. Waterhouse, Esq. of Adelaide, of Mrs. Kruesler, and Mr. Johannes Odewahn, of Gawler, South Australia, I am now enabled to make an addition of forty more. This brings the number of Australian Longicornia up to above 400 species. There are still remaining several others in my collection, belonging principally to the genera *Macrotoma*, *Hesthesis*, and *Mallodon*, which present certain difficulties that can only be cleared up by the examination of more numerous specimens than I have yet been able to obtain. In *Mallodon*, for instance, there are some examples related to *M. figuratum* differing from each other in size, and to a certain extent in outline (as indeed individuals even of the same species may be expected to do among this portion of the Prionidæ), in puncturation, and in various particulars connected with the head and prothorax. Whether any of these are sufficiently constant in their characters to deserve specific distinction remains to be seen. There are three, however, belonging to this genus which are so decidedly dissimilar to every other species and to each other, that I have no hesitation in adding them to the list. I hope eventually to have sufficient materials to work out the genus and its ally *Macrotoma*, so far as the Australian species are concerned, in a more satisfactory manner. In the meantime I shall be glad if these remarks elicit attention from those who may be able to assist me.

*Niphona torosa.*

*N.* robusta, pube grisea, fusco et ochraceo varia, setisque nigris dispersis; prothorace vage et fortiter punctato, medio linea impressa, lateribus

fortiter dentato; elytris postice lineis tribus elevatis, apicem versus conjunctis.

*Hab.* South Australia (*Mr. Waterhouse*).

Robust, covered with a short greyish pile, varied with brown and ochraceous, with a few scattered, black, setaceous hairs; head greyish, without an impressed line, but the antennary tubes forming a strongly marked angular concavity between them; antennæ as long as the body, brown, spotted with pale grey; prothorax full and rounded, strongly toothed at the side, with coarse distant punctures, two obscure brown stripes on the disk; scutellum transverse, greyish; elytra coarsely punctured, broad at the base, rounded behind the shoulders, then gradually receding, posteriorly three broad but slightly elevated lines, the inner two first uniting towards the apex, then the outer, behind the middle the usual obscure pale ashy-grey oblique band, rest of the elytra mingled ochraceous and grey; body beneath with a rough greyish pile, the abdominal segments bordered with yellowish; legs brown, spotted with greyish; anterior coxæ armed with a short spine. Length 7 lines.

A very robust species, and very distinct from any other that I am acquainted with. The anterior coxæ of the male are each armed with a spine, as in many others (irrespective of the genera) of the subfamily to which *Niphona* belongs.

*Symphyletes fumatus.*

*S.* elongatus, pube cinerascente fuscoque varius; prothorace longiore quam latiore; elytris basi spinoso-cristatis, apice ad suturam spina acuta productis.

*Hab.* South Australia (*Mr. Odewahn*).

Elongate, covered with a short, dense, dark ashy pile, varied with smoky brown; head with a narrow mesial line; the face covered with long, lax greyish hairs; antennæ much longer than the body, dark brown, spotted with white, clothed beneath and at the base with long whitish hairs, the terminal joint entirely white; prothorax longer than broad, the sides slightly rounded, two small tubercles on the centre of the disk; scutellum subquadrate, slightly rounded posteriorly; elytra gradually receding from the shoulders, the base of each armed with four rows of short black spines, the sutural row longest, the next the most elevated or crested, the third of two and the outer (at the shoulder) of one principal spine, apex somewhat truncate, the suture terminating in a spine, which is nearly concealed by the greater length of the pubescence at that part, the whole elytra smoky brown, with two very indistinct, dark ashy bands, and spotted, especially at the base, with reddish yellow; body beneath covered with a loose, long silvery pile; legs brown, spotted with white; the anterior tibiæ short, and strongly emarginate internally at the base. Length 10 lines.

In many respects this species resembles *S. pedicornis*, Fab. (the

type of which is now in the British Museum), but is more elongate, and is at once distinguished by each elytron terminating in a single spine.

*Symphyletes Angasii.* (Pl. XI. fig. 1.)

*S.* convexus, pube alba, griseo fulvoque varius; prothorace inæqualiter rotundato; elytris lateribus maculis duabus argenteis, pone medium fascia irregulari alba, apice rotundatis.

*Hab.* South Australia (*Mr. Angas*).

Convex, black, covered with a dense, white, varying to pale ashy pile, shaded with dark grey and speckled with fulvous; head pale ashy and fulvous, with a narrow mesial line scarcely extending to the epistome; antennæ scarcely fimbriated, much shorter than the body, greyish at the base, dark brown towards the apex; prothorax subtransverse, unequally rounded at the sides, ashy, varied with intricate fulvous lines; scutellum narrow, rounded posteriorly; elytra convex, the sides for about two-thirds of their length nearly parallel, the apex rounded, several black shining granules, which are larger and more crowded at the base, on each side behind the shoulder a large silvery-white patch, behind the middle a well-marked white zigzag band bordered with dark grey, over all numerous fulvous spots; body beneath and legs densely covered with a pale ashy pile, varied with fulvous. Length 11 lines.

More convex and less cylindrical than *S. pubiventris*, Pasc., the prothorax broader and more irregular at the sides, the pubescence whiter, and the band on the elytra very decided, not nearly obsolete as in that species. *S. farinosus*, Pasc., which has also the same style of coloration, has the apex of the elytra truncate.

*Symphyletes egenus.*

*S.* flavo-castaneus, nitidus; capite prothoraceque interrupto-pubescentibus; elytris glabris, apice emarginatis.

*Hab.* North Australia (*Mr. Damel?*).

Yellowish chestnut, shining; head with little patches of greyish hairs, varied with fulvous; antennæ as long or rather longer than the body, with lax, silky, white hairs, principally forming a fringe beneath; prothorax rather narrow, transverse, the sides nearly parallel, the disk slightly corrugated and very sparsely pubescent; scutellum narrow, rounded behind; elytra nearly glabrous, seriate-punctate, gradually narrowing from the shoulders, the apex emarginate, the outer angle produced, the inner broadly truncate, base of the elytra with a few granules the same colour as the rest; body beneath and legs pale chestnut, with scanty, long, whitish hairs. Length 8 lines.

Near *S. derasus*, Pasc., but without the snowy lateral line, and the apex of the elytra quite different. I believe my specimen came from Mr. Damel's collection.

*Symphyletes vestigialis.*

*S.* castaneus, pube ochracea dispersus; prothorace vix transverso, cylindrico, capite latiore; elytris obsolete granulatis, sutura lateribusque niveis, disco ochraceo irroratis.

*Hab.* South Australia (*Mr. Odewahn*).

Chestnut-brown, nearly glabrous, varied with a short, dense pubescence, ochraceous and snowy white; head large, coarsely punctured, nearly glabrous, except on each side the mesial line, the sides of the eyes, and about the face, where it is furnished with ochraceous hairs; mandibles dark brown; prothorax nearly equal in length and breadth, cylindrical, sparsely and coarsely punctured with four or five mostly irregular bands of ochraceous hairs; scutellum transverse, glabrous; elytra gradually narrowing from the shoulders, the apex subtruncate, the punctures shallow and scattered, and at the base partially replaced with a few low, almost obsolete granules, the disk with a soft ochraceous pile, the derm showing itself in small round spots, the suture, however, white, sides of the disk glabrous, chestnut, the outer margin with a dense snowy-white stripe of fine decumbent hairs; body beneath covered with a white pile, beautifully varied with ochraceous and spotted with chestnut; legs banded with chestnut and white, the femora mostly the latter colour; antennæ about as long as the body in both sexes, dark chestnut, the base of all the joints, except the first and second, white. Length 8–9 lines.

Allied to *S. albocincta*, Guér., but differently coloured, the prothorax longer and more cylindrical, the elytra less parallel at the sides, almost without granules, the pubescence more continuous, and the apex narrower and slightly truncate. No note accompanied my specimens, from which I infer the species is not uncommon.

*Symphyletes gallus.*

*S.* ferrugineus, pube grisea tectus; prothorace regulari, fere cylindrico; elytris subangustis, apice marginatis, sutura in spina productis, basi granulato-cristatis.

*Hab.* Interior of Australia (Stuart's Expedition) (*Mr. Waterhouse*).

Ferruginous, covered with a short greyish pile, faintly tinged in parts with fulvous; head rather short in front, sparsely punctured with a well-marked narrow mesial line; prothorax short, transverse, nearly cylindrical, the disk even; scutellum oblong, rounded behind; elytra rather narrow, gradually receding to the apex, which is truncated, the suture terminating in a short spine, at the base a short but elevated crest, crowned with three or four granules, rest of the elytra with irregular impressed punctures and scattered granules; body beneath and legs covered with a greyish pile; antennæ (apparently) longer than the body, unicolorous. Length 9 lines.

The specimen from which the above description is made is not in good condition, but it is very distinct on account of the crested elytra

combined with its cylindrical prothorax, to say nothing of its colour, which seems to have been pretty uniform.

*Penthea intricata.*

*P.* dense pubescens, nigro fulvoque variegata; elytris subbicostatis; antennis castaneis, articulis tertio ad sexto basi albis.

*Hab.* South Australia (*Mr. Waterhouse*).

Covered with a short close-set pile, fulvous, varied with irregularly confluent black spots and patches; head spotted with black, a very clear mesial line joined above the epistome by two oblique lines; palpi ferruginous; prothorax transverse, somewhat rugose at the sides, irregularly patched with black; elytra with their greatest breadth rather behind the middle, with shallow scattered punctures, and two well-marked but not elevated costæ on each; body beneath and legs greyish, spotted with black; antennæ shorter than the body, dark chestnut, the third to the sixth joints inclusive white at the base. Length 6 lines.

The irregularly confluent spots of both fulvous and black, especially on the elytra, together with the costæ on those parts, will distinguish this well-marked species.

*Penthea crassicollis.*

*P.* dense pubescens, pilis elongatis albis adspersis, fulva, nigro irrorata; prothorace latitudine elytris fere æquali; antennis nigris.

*Hab.* Interior of Australia (Stuart's Expedition) (*Mr. Waterhouse*).

Covered with a close-set fulvous pile, interspersed with long, straggling white hairs; head nearly as broad as the prothorax, coarsely punctured with mixed white and fulvous hairs; prothorax rough from deeply impressed confluent punctures, and rather obscurely varied with white and fulvous; scutellum round, black; elytra scarcely broader than the prothorax, sparingly punctured, without raised lines, a few glossy-black granules at the base, and spotted with black, a trilobed white mark round the scutellum, a patch of the same colour at the side behind the shoulder, and another towards the apex and nearly attaining to the suture; body beneath with a close mixed grey and fulvous pile; antennæ black, about two-thirds as long as the body; legs closely covered with greyish hairs. Length 8 lines.

Distinguished by the breadth and fulness of the prothorax, and the presence of long white hairs, from all its congeners, except *P. picta*, with which it agrees in the latter character only.

*Penthea picta.* (Pl. XI. fig. 5.)

*P.* dense pubescens, pilis albis adspersis, ochracea, sparse nigro irrorata et albo plagiata; antennis totis nigris.

*Hab.* South Australia (*Mr. Waterhouse*).

Covered with a dense yellowish ochraceous pile, interspersed with

short semierect hairs; head coarsely punctured, with greyish and whitish hairs in front; prothorax narrower than the elytra, dull white anteriorly, then brown and ochraceous; scutellum round, black; elytra with a few distinct punctures only, and three or four granules at the base, no raised lines, space round the scutellum, patch at the side behind the shoulder, and another flexuous patch posteriorly white, the scutellar and posterior patches bordered with black, rest of the elytra ochraceous, speckled with small black spots; body beneath and legs with a dense, rough, smoky-white pile; antennæ entirely black, about two-thirds the length of the body. Length 6 lines.

Differs from *Penthea scenica* (*inter alia*) in its entirely black antennæ.

*Rhytiphora Waterhousei.*

*R.* nigro-picea, pube sparsa, ochraceo griseoque irrorata; elytris basi lineis duabus vix elevatis, apice subtruncatis.

*Hab.* South Australia (*Mr. Waterhouse*).

Pitchy black, with a short pile arranged in little ochraceous tufts, the intervals exposing the black derm partially covered with pale-greyish hairs; in other words, the whole upper surface is finely speckled with ochraceous, grey, and black, the former predominating, and often confluent so as to form irregular lines; head rather short in front, with a mesial line extending from the vertex to the epistome; antennæ shorter than the body, grey, spotted with black, a little ochraceous at the base only; prothorax not quite so long as broad, the sides nearly parallel; scutellum subtriangular, the apex rounded; elytra very convex, gradually receding from the shoulders, the apex subtruncate, the base with a few black granules and two scarcely elevated although well-marked lines; body beneath and legs reddish ochraceous, spotted with black. Length 15 lines.

One of the largest species of the genus, which, from description, might be thought to approach *R. polymita*, Pasc., in colour; but in that species the pile is perfectly uniform in texture, and every spot of the derm is surrounded with pale ashy; in other respects it is also more cylindrical, the elytra not so convex, and without the basal lines. Altogether it is a very fine and distinct species.

*Monochamus ovinus.*

*M.* ovatus, fulvo-griseo pubescens, pallide griseo irroratus; capite impunctato; prothorace transverso, lateribus fortiter spinoso; elytris subtrigonatis, apice rotundatis; antennarum articulis apice nigris, duobus basalibus exceptis.

*Hab.* South Australia (*Messrs. Waterhouse* and *Odewahn*).

The male shortly ovate, the female more oblong, covered with a short, dense, fulvous-grey pile, sprinkled with a very much paler shade of nearly the same colour; head rather short, and very convex anteriorly,

with a shallow transverse groove above the epistome, impunctate, but with a well-marked mesial line; antennæ closely pubescent, more than twice as long as the body in the male, with the third, fourth, and fifth joints much enlarged, the third especially being thicker than the scape, and all, except the first and second, black at their tips; prothorax transverse, the disk slightly irregular, a few punctures posteriorly, a broad spine on each side near the middle; scutellum rounded behind; elytra with a few small punctures, chiefly at the base, the apex rounded; body beneath and legs finely pubescent, yellowish grey, shaded with paler, especially on the former. Length (♂) 8 lines, (♀) 10 lines.

With about a hundred species of the genus before me, I cannot very well approximate this to any of them. It is nearest, perhaps, to *M. argentatus*, Hope, but wants, *inter alia*, the silky pubescence of that species. I have dropped the old orthography of *Monohammus*, although I believe it to be the correct one (from *μόνος* and *ἄμμα*), because that now used seems to be universal; and, on the whole, perhaps it is as well to adopt, errors and all, the exact word of the author who first defines the genus.

*Microtragus Waterhousei.*

*M.* piceus, dense griseo squamulosus; prothorace ovato, elytris angustiore; elytrorum apice divaricato.

*Hab.* Kangaroo Island (*Mr. Waterhouse*).

Pitchy, densely covered with minute greyish scales; head very convex in front, with a deep line to the epistome, but not on the vertex; antennæ about two-thirds the length of the body; palpi bright luteous; mandibles black, when closed nearly hidden by the lip; prothorax not so broad as the broadest part of the elytra, very rugose, the spine at the side short; scutellum small and transverse; elytra not broader than the prothorax at the base, gradually dilating for about two-thirds of their length, then slightly contracting to terminate in a broadly divaricate apex, on each side the scutellum a short, stout, recurved tooth, from which proceed two lines of tubercles, the outer and larger extending rather more than two-thirds towards the apex, the inner somewhat less; body beneath and legs closely covered with minute scales and a sprinkling of stiff decumbent hairs. Length 9 lines.

Distinguished from its congeners by the divaricate apex of the elytra and dull greyish-brown colour, although, under a strong lens, the minute scales on which that colour depends are seen to have a glossy, almost metallic lustre. The species of this genus are excessively rare in collections. Mr. F. G. Waterhouse informs me that he has only taken them at sundown, in sandy places.

ITHEUM.

*Caput* exsertum, antice quadratum, tuberis antenniferis distantibus. *Oculi* parvi, valde emarginati. *Antennæ* breves, ciliatæ, scapo oblongo-attenuato, articulis tertio et quarto fere duplo longioribus, cæteris brevibus et æqualibus. *Prothorax* subcylindricus, capitis latitudine. *Elytra* angustissima, elongata, apice emarginata. *Pedes* breves. *Ungues* simplices. *Pro-* et *meso-sterna* depressa. *Abdominis* segmentis subæqualibus.

This is a long narrow form, like *Cacostola*, but with differently formed antennæ, widely separated at the base, &c. So far as the Australian Longicornia are concerned, it will follow *Atimura*, a genus recently characterized by me in the 'Trans. Ent. Soc.' 3rd series, vol. i. p. 548, and which has representatives in Borneo, Singapore, and Sumatra, but from which the present is distinguished by its longer and more attenuated scape, quadrate face, elytra not truncate at the apex, and other characters. The two species, particularly the last, have a very slight pubescence, with a few long, erect hairs scattered over the body, antennæ, &c.

*Itheum vittigerum.* (Pl. XI. fig. 9.)

*I.* tenuiter pubescens, fuscum, vitta laterali prothorace elytrisque cinereis.
*Hab.* South Australia (*Mr. Odewahn*).

Dark brown, rather sparsely covered with a long whitish pile, which at the side of the prothorax and elytra is sufficiently condensed as to form a narrow ashy stripe, long black setulose hairs also scattered over the body, legs, and antennæ; head coarsely punctured, especially on the vertex; eyes small, black; antennæ rather longer than half the length of the body; prothorax coarsely and closely punctured; scutellum narrow at the base, expanded and rounded posteriorly; elytra coarsely punctured, the apex broadly emarginate; body beneath dark brown, shining, with a thin greyish pubescence. Length 3–4 lines.

*Itheum lineare.*

*I.* tenuissime pubescens, fuscum; elytris omnino pallide fuscescentibus, apice oblique emarginatis.
*Hab.* South Australia (*Mr. Angas*).

This species resembles the former in most respects, but is somewhat narrower, and is nearly glabrous, with the apex of each elytron more obliquely emarginate, or, in other words, the external angle is more produced. The specimen described is from Port Lincoln. I have also received it from Mr. Waterhouse, taken near Adelaide.

OMOPHŒNA.

*Caput* exsertum, fronte brevi, declivi, tuberis antenniferis nullis. *Oculi* majusculi, fere divisi. *Antennæ* decemarticulatæ, incrassatæ, breves,

scapo oblongo-ovato, articulo secundo tertio dimidio breviore, tertio scapo parum æquali, quarto et quinque gradatim longioribus, sexto breviore, cæteris perbrevibus, ultimo ovato, præcedentibus obconicis. *Prothorax* oblongus, regularis, capite paulo latior. *Elytra* elongata, parallela, prothorace vix latiora, apice integra. *Pedes* mediocres; *femora* clavata; *tarsi* breves, æquales. *Acetabula* antica vix angulata. *Pro-* et *meso-sterna* simplicia. *Abdomen* segmentis æqualibus.

This genus is nearly allied to *Pytheus* and *Brachytria*, but is at once distinguished by its ten-jointed antennæ, with the third and fourth joints of the normal character, not abbreviated as in those genera. As a secondary distinction, the elytra are without the smooth elevated lines that are found in the allied forms.

*Omophœna Kruesleri.* (Pl. XI. fig. 8.)

*O.* nigra, subnitida, rugoso-punctata; elytris humeris aurantiacis.

*Hab.* South Australia.

Black, subnitid; head, prothorax, and elytra very coarsely and closely punctured, with scattered, slender, nearly erect white hairs remotely scattered over those parts; elytra with the shoulders orange; body beneath and legs pitchy, nearly glabrous, shining; antennæ brownish pitchy, about half the length of the body. Length $2\frac{1}{2}$ lines.

*Phoracantha Odewahnii.*

*P.* depressa, fulva, fere opaca; prothorace æquato (*in fœm.* subtransverso), lateribus breviter spinoso; elytris lateribus pone humeros incurvatis, apice integris; pedibus haud elongatis; femoribus attenuatis.

*Hab.* South Australia (*Mr. Odewahn*).

Depressed, fulvous, nearly opake; head coarsely punctured, with a few scattered hairs, mesial line almost obsolete; antennæ about the length of the body in both sexes, the joints from the third to the eighth inclusive spined on both sides at the apex; prothorax dark brown, equal in the male, subtransverse in the female, rather small, the sides shortly spined, the disk favosely punctured with five (*qu.* three) fulvous tubercles, the two lateral united; scutellum triangular; elytra rather broad, especially in the female, obscurely dashed with brown at the suture, the apex rounded; body beneath fulvous brown, with a thin greyish pile; legs very slender, but not elongate, the posterior tibiæ not extending beyond the apex of the abdomen. Length (♂) 14 lines, (♀) 21 lines.

This fine and very distinct species, in the small proportional size of the prothorax, can only be compared to *P. hamata*, Newm., and *P. superans*, Pasc., from both of which it is at once distinguished, *inter alia*, by the rounded apex of the elytra.

*Phoracantha grallaria.*

*P.* lata, fusca, subnitida; prothorace subtransverso, lateribus anguste an-

gulato; elytris flavo vittatis, apice bispinosis; antennis compressis, articulorum apicibus utrinque productis; pedibus intermediis et posticis elongatis, femoribus linearibus.

*Hab.* Queensland (*Mr. Diggles*).

Broad, dark brown, and rather glossy; head coarsely punctured, a deep mesial line between the eyes; antennæ longer than the body, compressed, covered with a short greyish pile, the joints from the third to the seventh or eighth inclusive produced on both sides at the apex; prothorax nearly equal, each side with a narrow angular process, the disk favosely punctured with five glossy tubercles; scutellum triangular, the apex rounded; elytra with three longitudinal yellow patches or stripes extending from near the base to beyond the middle, the central stripe, with a partial interruption, terminating at the inner apical angle, the apex bispinous; body beneath and legs covered with a dense grey pile, the latter having the intermediate and posterior pairs very slender and elongate, and their tibiæ, particularly the posterior, flexuose; the anterior legs very short, their femora scarcely half the length of the intermediate. Length 16 lines.

A very distinct and handsome species, remarkable for its long and slender intermediate and posterior legs, with the femora absolutely linear, and for the yellow stripes on the elytra.

*Phoracantha pedator.*

*P.* angusta, fusca, subnitida; prothorace elongato, lateribus late angulato; elytris medio et basin versus plus minusve flavo plagiatis, apice biapiculatis, flavo plagiatis; pedibus elongatis, femoribus valde clavatis.

*Hab.* South Australia (*Mr. Odewahn*).

Narrow, dark brown, subnitid; head rugosely punctured, a short mesial line between the eyes; antennæ as long as the body in the female, about a third longer in the male, ferruginous, the third, fourth, and fifth joints spined at the apex on one side; prothorax elongate, very irregular, scarcely punctured, the sides nodose; scutellum rounded behind; elytra with yellow patches at the middle and towards the base, and an oblong spot at the apex, which is bispinous, the inner or sutural spine nearly obsolete; body beneath dark brown, finely pubescent, the mesopectus reddish chestnut; legs elongate, the femora very strongly clavate. Length 6–9 lines.

In its narrow outline and long legs, with the strongly clavate femora, this species approaches *P. aberrans*, Newm.; but it has not the sharp thoracic spine of that species, and its coloration differs entirely.

*Phoracantha hospita.*

*P.* fusca, nitida; prothorace oblongo (*in fœm.* æquato), spina laterali acuta; elytris medio flavo fasciatis vel subfasciatis, apice biapiculatis, flavo

plagiatis; antennis pedibusque testaceo-ferrugineis; femoribus simplicibus.

*Hab.* Queensland (*Mr. Diggles*).

Of moderate breadth, dark chestnut-brown, shining; head coarsely punctured, the mesial line very narrow; antennæ pale ferruginous, half as long again as the body in the male, the third to the inner joints inclusive spined at the apex; prothorax rather longer than broad in the male, equal in the female, favosely impressed with five shining tubers on the disk, the lateral somewhat indefinite, the spine rather slender and produced, and placed about midway on each side; scutellum nearly triangular, glabrous; elytra slightly incurved behind the shoulder, the apex emarginate, the outer angle strongly produced, a yellowish band, more or less broken anteriorly, extending from the middle towards the base, with a small round spot of same colour at the apex; body beneath glossy chestnut-brown, inclining to reddish on the metasternum; legs pale ferruginous, rather slender, the femora slightly clavate. Length 6 lines.

Allied to *P. sexmaculata*, Hope, but with a shorter and broader prothorax and strongly apiculate elytra.

*Phoracantha Angasii.*

*P.* subangusta, fusca, nitida; prothorace oblongo, lateribus nodoso; elytris fortiter punctatis, sparse pubescentibus, medio singulorum macula flava rotundata, apice integris; femoribus clavatis.

*Hab.* South Australia (*Mr. Angas*).

Somewhat narrow, dark brown, shining; head coarsely punctured, a short mesial line between the eyes, face bright reddish ferruginous; antennæ longer than the body in the male, shorter in the female, also bright ferruginous, covered with long, slender, scattered hairs; prothorax oblong, coarsely punctured with five tubercles on the disk, the sides nodose; scutellum subtransverse; elytra sparsely pubescent, nearly parallel at the sides, the apex rounded, or very slightly produced at the suture, a round yellow spot nearly on the centre of each; body beneath and legs bright reddish ferruginous, with long scattered hairs; femora clavate. Length 8–9 lines.

In some respects this species approaches *P. pubescens*, Pasc., but is more depressed, infinitely less pubescent, and has the apex of the elytra rounded, not truncate. I received it originally from Mr. Angas, ticketed "Port Lincoln," and more recently from Mr. Odewahn, who appears to have taken it plentifully at Gawler.

*Phoracantha balteata.*

*P.* subangusta, fusca, subnitida; prothorace oblongo, punctis rugoso-impressis, lateribus nodoso; elytris sparse pubescentibus, fascia mediana flava, apice integris, obsolete flavo maculatis; femoribus subclavatis.

*Hab.* South Australia.

Rather narrow, brown, slightly shining, sparingly pilose; head irregularly but coarsely punctured, a short mesial line between the eyes; antennæ shorter than the body, ferruginous, everywhere covered with scattered erect hairs, the third joint with a long spine, the fourth with a short spine, the remainder unarmed; prothorax oblong, the sides slightly nodose, the disk with indefinite, roughly impressed punctures and an elongate, smooth central space; scutellum triangular; elytra coarsely punctured, rather broader behind the middle, rounded at the apex, an obscure fulvous band nearly at the middle, and an almost obsolete spot at the apex; body beneath chestnut-brown, somewhat glossy; legs ferruginous, with long scattered hairs; femora slightly clavate. Length 5 lines.

Allied to *P. bifasciata*, Pasc., but decisively distinguished by the form of the scutellum, which is rounded posteriorly in that species, and equilaterally triangular in this. It differs also in the form of the elytra, in the colour, and in the indefinite style of the punctuation on the head and prothorax.

*Phlyctænodes pilosus.*

*P.* elongatus, piceus, griseo pilosus; prothorace oblongo, disco subnodoso, lateribus angulato.

*Hab.* South Australia (*Mr. Waterhouse*).

Elongate, pitchy, but paler posteriorly, shining, covered with short, scattered greyish hairs, mixed with longer hairs on the antennæ and legs; head coarsely punctured, deeply concave between the antennary tubers; antennæ rather shorter than the body; prothorax longer than broad, the disk irregular or slightly nodose, the side behind the middle broadly angulated; scutellum subtransverse; elytra parallel at the sides, each with three slightly raised lines, the apex rounded; body beneath glossy reddish brown, nearly glabrous. Length 7 lines.

Differs from *Phlyctænodes tristis*, Fab. (a New Zealand species), in its oblong prothorax without the two elevated glossy tubercles which distinguish that species, the longer elytron with elevated lines, and its pubescence. It is still more distinct from the two Australian species.

In the 'Transactions of the Entomological Society,' 3rd series, vol. i. p. 549, I have separated, under the name of *Isalium*, those species that differ from *Didymocantha*, Newm., in their elongated muzzle, unsymmetrical antennary joints, unarmed prothorax, &c.; and it will also be necessary, I think, to separate my *Didymocantha cylindricollis*, which has the joints of its antennæ cylindrical, and is a more elongate form, without any of the hairs being collected into masses so as to form well-defined spots. I propose to name this genus *Lygesis*. An undescribed species (which, with several others

I have received whilst these sheets were passing through the press, I propose to describe and figure hereafter) is a still narrower form, with slender, scattered, erect hairs, not stiff and decumbent as in the above-mentioned genera, and differing from them essentially in the greater size and length of the basal joint of the antennæ, which is nearly twice as long as the third, instead of being shorter, or at most only equal to it. This species I have named *Bebius filiformis*. The following species is a true *Isalium*.

*Isalium Odewahnii.*

*I.* testaceo-brunneum ; prothorace lateribus rotundato ; elytris nigro-subbifasciatis, apice intus truncatis, sutura spina brevi producta.

*Hab.* South Australia (*Mr. Odewahn.*)

Testaceous brown, with sparse white setulose hairs; head coarsely impressed, dark chestnut, the hairs more closely set between the eyes, so as to form a white spot; prothorax broader than the head, rounded at the sides, with confluent coarsely impressed punctures, each having a stiff hair arising from its base, the disk with six white spots, formed by closely crowded hairs, two on each side, one at the apex and another at the base; scutellum covered with white hairs; elytra much broader than the prothorax, coarsely punctured, each puncture with a white hair, the apex of each truncate internally, the suture produced into a short spine, at the shoulder and extending obliquely backwards an irregular black band, behind the middle a second band, but transverse and very irregular; body beneath brownish testaceous, with spots of white hairs on the abdomen; legs and antennæ pale brownish, the tips of the femora black. Length 11 lines.

This species resembles *I. thoracicum*, Pasc., but differs in the rounded, not straight, sides of the prothorax, and in the truncate apex of each elytron, not rounded as in that species. *I. scutellatum*, Hope, has the apex of each elytron rounded and entire. *I. cretiferum* of the same author (constituting his genus *Coptopterus*) has the apex of each elytron emarginate.

Opsidota.

*Caput* antice brevissimum, tuberis antenniferis basi approximatis. *Oculi* perampli, valde emarginati. *Antennæ* corpore longiores, scapo subcurvato obconico, articulo tertio paulo breviore, quarto fere æquali, cæteris longioribus et subæqualibus, omnibus, primo et secundo exceptis, unilateraliter dilatatis. *Palpi* breves, incrassati. *Prothorax* æqualis, lateribus rotundatis. *Elytra* subbrevia, parallela, depressa, apice integra. *Pedes* mediocres ; *femora* compressa. *Pro-* et *meso-sterna* simplicia.

In its very short face this genus agrees with *Didymocantha*, Newm.

(*D. obliqua*), but differs in the form of the prothorax and the absence of the lateral spines; the dilated joints of the antennæ also are characteristic, although there is a sharpness on one side in *Didymocantha* that marks an approach to the same structure.

*Opsidota infecta.* (Pl. XI. fig. 6.)

*O.* fusca, nitida, disperse griseo hirta; elytris obsolete flavo plagiatis.
*Hab.* South Australia.

Dark brown, shining; head as broad as the prothorax, with a sharply impressed frontal line, the eye occupying the whole side of the head, and somewhat approximating on the vertex; prothorax not longer than broad, the apex and base equal in breadth, very rugosely punctured with scattered, stiff, greyish hairs, which are rather more densely placed on the centre and sides, so as to form five spots; scutellum slightly rounded behind; elytra about twice the length of the head and thorax together, much broader than the latter, covered with large irregular punctures, with stiff, scattered, decumbent greyish hairs and a few nearly obsolete yellow blotches, the apex with a short sutural spine; body beneath and legs dark brown, with greyish hairs; antennæ dull brown. Length 7–9 lines.

Taphos.

*Caput* subexsertum, antice brevissimum, tuberis antenniferis distantibus. *Oculi* majusculi, intus lunulati. *Antennæ* 11-articulatæ, corpore longiores, glabræ, scapo brevi, obconico, articulo secundo brevissimo, cæteris compressis, subæqualibus, apice lateraliter productis, ultimo emarginato. *Palpi* incrassati. *Maxillæ* lobo externo producto, fimbriato. *Prothorax* capite latior, æquatus, lateraliter dentatus. *Elytra* late depressa, apice rotundata. *Pedes* mediocres. *Coxæ* anticæ distantes, globosæ, haud exsertæ. *Femora* simplicia. *Tarsi* postici articulo basali elongato-triangulari. *Prosternum* elevatum. *Mesosternum* latum, declive. *Acetabula* antica anguste angulata.

The single specimen from which I have drawn up this description appears to be a female. If I am right in referring it to the neighbourhood of *Cerambyx* notwithstanding its broad depressed body, the antennæ of the other sex will prove to be somewhat different, probably longer and less compressed. I feel, however, some difficulty about its location, the form of the head, antennæ, and simple femora pointing to *Cerambyx*; but it differs remarkably from it in habit, in this respect bearing considerable resemblance to a Prionid.

*Taphos aterrimus.* (Pl. XI. fig. 7.)

*T.* ater, nitidus, glaber.
*Hab.* South Australia.

Deep glossy black, without pubescence; head sparingly punctured,

with a short, strongly impressed mesial line between the eyes, terminating above the epistome in a broad, transverse depression; prothorax nearly as long as broad, the sides irregular, having rather behind the middle a short angular tooth, disk with scattered shallow punctures, its sides somewhat slightly corrugated; scutellum triangular, obtuse at the apex; elytra much broader than the prothorax, rather short and depressed, the sides nearly parallel, coarsely punctured at the base, the punctures becoming nearly obsolete at the apex; pectus transversely corrugated; metasternum and abdomen glossy black, nearly impunctate; legs black; tibiæ slightly ciliated internally; antennæ black and opake, except the basal joint. Length 9 lines.

*Ceresium? modestum.*

*C.* rufo-testaceum, pube grisea sparse tectum; prothorace breviter ovato, medio cicatricoso; elytris oblongo-ovatis; femoribus subclavatis.

*Hab.* South Australia (*Mr. Odewahn*).

Reddish testaceous, covered with short, greyish, scattered hairs; head without any mesial line, the eye occupying nearly the whole side; antennæ scarcely two-thirds the length of the body; prothorax shortly ovate, a longitudinal scar-like line in the middle; scutellum subtransverse, rounded; elytra oblong-ovate, narrower in the male, rather closely punctured, each puncture with a grey hair arising from its base, the apex rounded; body beneath reddish chestnut, sparsely pubescent; legs rather short, the femora scarcely clavate. Length 4–5 lines.

If *Ceresium raripilum* of Newman, the type of the genus, is to be *strictly* defined (which, however, Mr. Newman has not done), this species can only be considered as doubtfully congeneric. There are several undescribed species which it will be necessary to work up before the limits of *Ceresium* can be ascertained.

*Obrium dorsale.*

*O.* castaneum, nitidum; prothorace, antennis, pedibus elytrisque basi et medio luteis.

*Hab.* South Australia (*Mr. Waterhouse*).

Dark chestnut, shining, with short, scattered, erect hairs; head roughly punctured; antennæ rather longer than the body, pale luteous; prothorax elongate, irregularly and coarsely punctured, nodose at the side, the disk with three rather obscurely defined, smooth prominences; scutellum triangular; elytra rather narrow, with large, deep, closely set punctures, the base and stripe down the suture for about two-thirds of its length pale luteous; body beneath glabrous, glossy luteous; legs luteous, shining, with long, erect, dispersed hairs. Length 5 lines.

This species and the following are rather more robust than usual. The anterior coxæ are also not at all exserted, and their acetabula have a long angular slit externally.

*Obrium tripartitum.*

*O.* castaneum, subnitidum; elytris dimidio basali, antennis pedibusque luteo-testaceis.

*Hab.* South Australia (*Mr. Waterhouse*).

Dark chestnut, subnitid, clothed with long, erect, scattered grey hairs; head very roughly and closely punctured; antennæ shorter than the body, pale luteous; prothorax rather longer than broad, coarsely punctured, the disk irregular, with two transverse, smooth prominences anteriorly, the sides doubly nodose; scutellum triangular, pale luteous; elytra considerably broader than the prothorax, covered with large, round, deeply impressed punctures, and becoming less marked towards the apex, the basal half luteous testaceous, apex round and paler in colour; body beneath glossy luteous, the legs paler. Length 6 lines.

A more robust insect than the last; the colours differently disposed, &c.

*Phacodes ferrugineus.*

*P.* rufo-brunneus, sparse pubescens; prothorace rude punctato, haud tuberculato; elytris apice rotundatis.

*Hab.* South Australia (*Mr. Waterhouse*).

Uniform reddish brown and thinly pubescent; head coarsely punctured; antennæ about two-thirds the length of the body, the basal joint short, but as long as the third joint; prothorax covered with nearly confluent irregularly impressed punctures, without any tubercles, and with remotely dispersed short hairs; scutellum hairy, subscutiform; elytra with small crowded punctures, more distinctly placed towards the apex, which is entire; body beneath pale ferruginous, with short, scanty greyish hairs; femora and anterior legs luteous; tibiæ and tarsi of the intermediate and posterior pairs dark brown. Length 6 lines.

Nearly allied to *P. personatus*, Er., but without any tubercles on the prothorax, differing also in the relative proportion of the joints of the antennæ, and in the colour, which is a uniform reddish brown, and very scantily pubescent.

*Uracanthus fuligineus.*

*U.* fuscus, totus griseo-hirtus; elytrorum apice introrsum emarginato.

*Hab.* South Australia (*Mr. Odewahn*).

Brown, the upper surface entirely covered with crisp greyish hairs; head reddish pitchy, finely punctured; antennæ rather longer than the body; prothorax not nodose at the sides; scutellum nearly triangular; elytra of nearly equal breadth throughout, very slightly incurved posteriorly, the apex very obliquely emarginate towards the suture, the external angle slightly produced, but scarcely spinous; body beneath closely covered with a short greyish pile, except the throat, which is glossy brown; legs with scattered greyish hairs. Length 7 lines.

A very distinct species, readily distinguished by its uniform colour and the oblique emargination of the apex of the elytra.

MYSTROSA.

*Caput* antice subproductum, inter oculos plano-elevatum. *Oculi* magni, leviter emarginati. *Antennæ* corpore vix longiores, scapo tenuiter ovato, articulo tertio breviore, quarto paulo longiore, cæteris longioribus et subæqualibus. *Palpi* cylindrici. *Prothorax* oblongus, lateribus medio nodosus. *Elytra* elongata, fere parallela, apice truncata. *Acetabula* antica late angulata. *Coxæ* anticæ et intermediæ distantes. *Pedes* subbreves; *femora* compressa, vix clavata. *Tarsi* modice elongati, attenuati. *Abdomen* elytris superante, in medio constrictum, apice depressum, segmentis æqualibus.

This genus appears to be in some degree intermediate between *Uracanthus* and *Bardistus*, but agreeing much more closely with the former, although the muzzle is much shorter, and the anterior acetabula are very largely and broadly angulated. In this character, and to a certain extent in habit, *Mystrosa* resembles *Bardistus*; the remarkable eye, however, in that genus and the contiguous anterior and intermediate coxæ will readily distinguish it. The singularly formed abdomen, contracted in the middle, and dilated and flattened at the apex, although not very considerably, is quite unparalleled, so far as I know, in this family.

*Mystrosa rubiginea*. (Pl. XI. fig. 2.)

*M.* rufo-castanea, prothoracis lineis duabus obscure griseis; oculis nigris.

*Hab.* South Australia.

Reddish chestnut; head with a deeply impressed line between the eyes, dividing into two branches above the epistome; prothorax longer than broad, apex and base of the same breadth, stoutly knotted or angulated at the side, a broad line of dull greyish hairs on the disk on each side; scutellum rounded behind; elytra sublinear, closely punctured, with four somewhat oblique slightly elevated lines on each, the inner or sutural line most evident at the base, where the other three are less conspicuous, apex truncate, the outer angle produced; body beneath dark luteous; eyes black. Length 7 lines.

*Akiptera Waterhousei*. (Pl. XI. fig. 4.)

*A.* nigra; elytris basi, regione scutellari excepto, facie gulaque flavescentibus; prothorace fere æquato, toto nigro.

*Hab.* South Australia (*Mr. Waterhouse*).

Black, with short, scattered, erect hairs, principally on the head, prothorax, and legs; head roughly punctured, with a sharp mesial line terminating above the epistome in a deep transverse depression; face, throat, and palpi yellow; mandibles black; prothorax closely punctured, nodose on the disk on each side, lateral tooth produced, obtusely trian-

gular; scutellum scutiform; elytra rather broader than the prothorax, finely punctured, with two raised lines at the base, the apex rounded externally, but with a short tooth internally at the suture, a broad yellow band occupying, except just across the scutellum, rather less than the basal third; the pectus black, hairy; abdomen steel-blue; legs black, except the distal portions of the femora and proximal of the tibiæ of the anterior and intermediate pairs, which are bright yellow. Length 8 lines.

*Akiptera* was founded some years ago by Mr. W. Wilson Saunders for a very rare insect; indeed I believe only one specimen is known, which is now in the Melley Collection at Geneva. The species described above differs from Mr. Saunders's specimen in the form of the prothorax and in certain discrepancies in colour. I have drawn up the following diagnosis of the genus that its characters may be contrasted with those of allied genera, the nearest of which appears to be *Bimia*, the antennæ, however, very nearly resembling *Hesthesis*. Another species (if it be one, as it only differs in the elytra being altogether black) was taken, for the first time, just before Christmas last by Mrs. Kruesler at Gawler.

AKIPTERA, *W. Wilson Saunders.*

*Caput* exsertum, antice subquadratum, tuberis antenniferis validis, distantibus. *Labrum* et *epistoma* perbrevia. *Palpi* breves, articulo ultimo obtuse ovato. *Oculi* mediocres, reniformes. *Antennæ* 11-articulatæ, elongatæ, filiformes, glabratæ, scapo modice elongato, obconico, apice rotundato, articulo secundo medio constricto, tertio scapo æquali, cæteris gradatim longioribus compressis, articulo ultimo apicem versus emarginato. *Prothorax* capite vix latior, æquatus, nodosus, lateribus dentatus. *Elytra* abdomine paulo breviora, divaricata, apice extus rotundata. *Acetabula* antica fortiter angulata. *Pedes* mediocres. *Coxæ* anticæ exsertæ. *Prosternum* angustissimum. *Mesosternum* depressum, angustum.

EARINIS.

*Caput* subproductum, tuberis antenniferis validis, distantibus. *Epistoma* occultum. *Labrum* minutum. *Palpi* breves, obtusi. *Oculi* reniformes, prominuli. *Antennæ* lineares, 11-articulatæ, breves (dimidio corpore fere longiores), scapo vix elongato, articulo tertio paulo longiore, quarto brevi, cæteris longioribus vel subæqualibus. *Prothorax* vix oblongus, pone medium lateribus angulatus, antice et postice constrictus. *Elytra* angusta, subparallela, abbreviata, apice divaricata. *Abdomen* elongatum, segmentis æqualibus. *Pedes* breves; *tarsi* mediocres. *Coxæ* anticæ approximatæ. *Acetabula* antica late angulata. *Mesosternum* parvum. *Corpus* elongatum, depressum.

One of the more remarkable genera of Longicorns, the peculiar habit giving it, at first sight, the appearance of a Malacoderm, as for

instance, some species of *Carphurus*, Er. Its affinity is not very decided, but, of all the genera known to me, I have no hesitation in placing it nearest to *Tropis*. It must be recollected that there are a number of very peculiar, and some of them very isolated, forms generally brought together under the Lepturidæ, but some of which have also been considered to belong to the Prionidæ. If we exclude *Leptura*, *Strangalia*, and other almost purely northern genera, we shall probably find that there remain several forms, some of which it will be natural to consider as representatives of distinct subfamilies; but it will be almost impossible to find characters that will limit these satisfactorily; therefore, and as a matter of convenience only, it may perhaps be desirable not to separate them. If such a separation be made, we think *Earinis* will stand as the type of one of these subfamilies. The whole insect is nearly glabrous, except for the long scattered setose hairs. So far as I know, it has only been taken by Mrs. Kruesler at Gawler.

*Earinis mimula*. (Pl. XI. fig. 3.)

*E.* nigro setulosa; capite nigro-chalybeato; prothorace flavo; elytris purpureis, fasciis duabus stramineis ornatis.

*Hab.* South Australia (Gawler).

Narrow and depressed, with slender, erect, scattered black hairs; head dark chalybeate, roughly punctured, a broad groove between the antennæ; prothorax glossy yellow, punctured only to receive the long hairs that are thinly dispersed on its disk; scutellum transverse, black; elytra closely punctured, purple, with two pale straw-coloured bands posteriorly; the first and largest of these bands has the texture of the part raised, with fewer and larger punctures than elsewhere, the apex obtusely pointed; legs black, coarsely punctured, the posterior, when extended, not reaching beyond the abdomen; metasternum black, propectus pale yellow, the abdomen reddish yellow, with the last abdominal segment entirely, and the two preceding in the centre only, chalybeate black; antennæ black, the fourth to the tenth joints inclusive yellow at the base. Length 6 lines.

In a second specimen the hind head is yellow; the elytra, metasternum, and last abdominal segment, with the spots on the preceding two, are bright chalybeate-blue.

*Agapete Kruesleri*.

*A.* niger; capite rubro; abdomine infra segmentis secundo et tertio totis griseo pilosis.

*Hab.* South Australia (*Mrs. Kruesler*).

Head orange-red, closely punctured, a deep fovea between the eyes, immediately above the antennary tubers, mesial line well marked;

eyes and tips of the mandibles black; antennæ black, except the condyle of the basal joint; prothorax black, coarsely punctured, with scattered erect hairs; scutellum shortly scutiform; elytra pale yellowish olive; abdomen black, the two middle segments and posterior half of the basal covered with pale olivaceous silky hairs, sterna black; legs glossy black, with long, erect, scattered, pale greyish hairs. Length 6 lines.

Of the two specimens before me, neither have the antennæ perfect, but they appear, judging from what remains, to have been considerably shorter than the body. The species, however, is at once distinguished from *A. carissima*, Newm., the only other known, by its black prothorax.

*Mallodon Odewahnii.*

*M.* depressum; prothorace transverso, antice late emarginato, lateribus spinoso-crenatis, crenis apice plerumque bifidis, disco, figura complexa mediano excepta, minutissime punctato, granulifero; antennis nitidis, sparse punctatis.

*Hab.* South Australia (*Mr. Odewahn*).

Rather narrow and depressed, glossy brown, paler on the elytra; head coarsely punctured; mandibles deeply hollowed out on their dorsal surface; antennæ about half the length of the body, scape not extending to beyond half the breadth of the eye, coarsely punctured; prothorax transverse, the margin spinulose, the disk on each side with a large, smooth, glossy space sparsely punctured, and a narrow strip at the base, the rest finely and very closely punctured, with numerous scattered granules amongst them; scutellum subtransverse, rounded behind; elytra finely punctured; body beneath finely granulate; legs covered with short, scanty hairs. Length 22 lines.

From *Mallodon figuratum* this species is distinguished by its narrower form, short scape, mandibles deeply excavated above, prothorax granulate, scutellum rounded behind, and elytra finely punctured. On account of its spinose anterior tibiæ (a character of scarcely specific value), it belongs to the genus *Cnemoplites*, Newm.

*Mallodon cephalotes.*

*M.* capite magno, vertice elevato; prothorace convexo, crebre punctato, lateribus angustissime marginatis, sparse crenatis; scutello subscutiformi, apice fere rotundato; antennis nitidis, vage punctatis; tibiis inermibus.

*Hab.* Queensland (*Mr. Diggles*).

Dark glossy brown, lighter on the elytra; head large, the vertex elevated and convex, very coarsely punctured; mandibles narrow, very convex; scape of the antennæ extending to the posterior margin of the eye, with large scattered punctures; prothorax transverse, the margin irregularly crenate, the disk with punctures of various sizes, many of

the larger ones confluent, no smooth spaces; scutellum subscutiform, slightly pointed behind, nearly impunctate, an irregularly impressed line near the margins on each side; elytra with numerous coarse but very shallow punctures; body beneath covered with golden-brown hairs, especially on the abdomen, where they are long and very dense, the antepectus nearly glabrous, except around the prosternum; legs glossy brown, glabrous, with a few distinct punctures; tibiæ unarmed. Length 24 lines.

A fine and very distinct species, which it is quite unnecessary at present to compare with any other.

*Mallodon jejunum.*

*M.* parallelum; prothorace transverso, antice incurvo, lateribus vix crenatis, marginibus angustissimis, disco eroso-punctato, spatiis duabus glabris triangularibus exceptis; antennis vage punctatis, scapo triquetro.
*Hab.* Richmond River.

Narrow and, including the prothorax, nearly parallel, chestnut-brown, the elytra testaceous brown; head narrower than the prothorax, coarsely punctured, punctures mostly confluent; mandibles short and thick, with large remote punctures; antennæ about half the length of the body, very slender, except the scape, smooth, slightly and remotely punctured, the scape short and triquetrous, and rather closely punctured; prothorax transverse, the anterior margin incurved, the side with a very narrow border, which is only very slightly crenate, a sharp spine nearly parallel with the side at the posterior angle, which is opposed to another posteriorly nearly at a right angle to it, the disk with a small smooth triangular space on each side anteriorly; scutellum finely punctured, somewhat triangular, its apex rounded; elytra with crowded punctures, with several often confluent together; body beneath nearly glabrous, the metasternum only covered with long silky hairs; legs rather short, glabrous, the intermediate as well as the anterior tibiæ spined. Length 14 lines.

The narrow parallel outline, slender antennæ with a triquetrous scape, armature of the prothorax, &c., are sufficiently distinctive of this species at present.

Differing from *Mallodon* in the greater length of the third antennal joint, which considerably exceeds the scape, and in this respect agreeing with *Macrotoma*, but with the head in the male nearly as broad as the prothorax, is a species for which I think a new generic name will be necessary. This I have provisionally named *Catypnes*; but at present I shall not attempt to characterize it further. If *Chiasmus* and *Archetypus* are to be retained, still more genera will have to be formed out of the old *Mallodon*. I received my specimens from W. Macleay, Esq., M.L.A., of Sydney.

*Catypnes Macleayi.*

*C.* castaneus, nitidus; prothorace transverso, irregulariter punctato, utrinque trispinoso; elytris subremote punctatis.

*Hab.* Richmond River.

Dark glossy chestnut, lighter on the elytra; head very large in the male, and nearly as broad as the prothorax in both sexes, erosely and roughly punctured; mandibles concave above; eye narrow, nearly entire; antennæ about half the length of the body, the scape very short and subcylindrical; prothorax transverse, covered with numerous punctures of various sizes, but generally smaller and more dispersed in the middle, the sides with three equidistant spines or teeth; scutellum transverse, slightly emarginate behind; elytra scarcely broader than the prothorax in the male, considerably broader in the female, covered with small and somewhat distant punctures; body beneath pale chestnut, shining, the postpectus covered with sparse yellowish hairs; legs rather short, the tibiæ unarmed. Length 23 lines.

*Macrotoma papyria.*

*M.* rufo-testacea; prothorace eroso-punctato, marginibus denticulato, disco spatiis duabus triangularibus nitidis; antennis pedibusque tenuatis, tibiis anticis et intermediis extus denticulatis.

*Hab.* South? Australia.

Rufous testaceous; head shorter and broader than usual, especially below the eyes, with confluent impressed points; eyes large, black, and less approximate in front; mandibles small; antennæ scarcely half the length of the body, nearly filiform, and remotely punctured, the scape short, triquetrous, the third joint very little longer than the scape; prothorax reddish chestnut, transverse, coarsely and erosely punctured, with two large, shining, triangular, and nearly smooth elevated patches on the disk, the lateral margins armed with long slender teeth, about a dozen on each side, the eighth or ninth longest and recurved; scutellum subtriangular, the sides slightly rounded; elytra narrow, thin, and nearly transparent, covered with crowded punctures; abdomen reddish brown, glossy, nearly glabrous, the breast clothed with yellowish hairs; legs rather short, slender; femora nearly smooth beneath; anterior and intermediate tibiæ denticulate, but on the outer margin only; tarsi slender. Length 17 lines.

A slight-looking species, with elytra of very thin texture, no armature beneath the femora, and the anterior and intermediate tibiæ with the outer margin only denticulate.

Three species, which it was my intention to describe in this paper, I have been compelled, on a minuter examination, to consider as representatives of new forms, and therefore to defer the descriptions until they can be figured. One of these has been already alluded to

under the name of *Bebius* (*ante*, p. 235). Another, resembling *Sophron**, Newm., but with large facets to the eyes (*Œbarina*), is from South Australia. A third, with the habit of *Ropica*, Pasc., but with a differently formed prothorax, &c. (*Phœapate*), has been recently received from Queensland. These, with other novelties, will be described and figured in the next part of this Journal.

## EXPLANATION OF PLATE XI.

Fig. 1. *Symphyletes Angasii.*
„ 2. *Mystrosa rubiginea.*
„ 3. *Earinis mimula.*
„ 4. *Akiptera Waterhousei.*
„ 5. *Penthea picta.*
Fig. 6. *Opsidota infecta.*
„ 7. *Taphos aterrimus.*
„ 8. *Omophœna Kruesleri.*
„ 9. *Itheum vittigerum.*

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## XIX.—*Note on the Australian Species of* Clytus.

By Francis P. Pascoe, F.L.S.

The number of Australian species belonging to the old genus *Clytus* is very small. Five only are certainly known to inhabit that continent; and as some attempts have been recently made to subdivide the genus, it may be serviceable shortly to review the Australian species in order to ascertain how far it is desirable to adopt the changes proposed. The five well-ascertained species indigenous to Australia are

*Clytus thoracicus*, Don. (*Aridæus*, Thoms.).
—— *diophthalmus*, Pasc. (*Cremys*, gen. nov.).
—— *chrysoderes*, White (*Demonax*, Thoms.).
—— *Curtisii*, Lap. et Gory (*Anthoboscus*, Chev.).
—— *australis*, Lap. et Gory (*Xylotrechus*, Chev.).

With regard to these divisions, I scarcely know how *Anthoboscus*† is to be distinguished from *Plagionotus*, Muls., or this again from

* Recently described by me under the name of *Clæadne* (Trans. Ent. Soc. ser. 3. i. p. 560, pl. 23. fig. 5), and unfortunately not recognized as the *Sophron inornatum* of Newman until too late. In the figure (which accurately represents my specimen) the elytra are so contracted, that a very imperfect idea is given of the animal's appearance in its normal state. The small facets of the eyes have been pointed out to me by M. James Thomson as one of the characters that distinguish the *Callidium* group from the *Obrium* and other allied forms. Mr. Newman, in proposing *Sophron* (Entom. p. 354), says nothing as to its affinities. To me they appeared very doubtful; but, having regard to this character (*i. e.* the fine facets of the eye), there can be little hesitation in referring it to the Callidiinæ.

† This name has been previously used, I think, for a Dipteron, but I cannot be sure. *A. alphabeticus*, Chev., appears to be my *Clytus notabilis* (*ante*, i. p. 360).

*Xylotrechus*. Many of the species which Chevrolat refers to one Thomson places under the other, *e. g. C. plebeius*, *C. ornatus*, *C. verbasci*, &c. M. Chevrolat regards *Clytus scalaris* as a true *Clytus*, while it is a *Plagionotus* for M. Thomson. This author, indeed, confines the term "*Clytus*" to the North American species, most of the numerous European species receiving the new name of *Europa*, which was afterwards altered to *Clytumnus*. *Perissus*, Chev., seems to be distinguished from *Xylotrechus* by the greater length of the four posterior legs; at least, I can make out nothing from the other characters that will serve to differentiate the two.

In arranging between seventy and eighty species of *Clytus* (most of them undescribed) belonging to the Malayan fauna, I have failed to seize the characters on which those genera depend, and unfortunately there is nothing distinctive in the habit which would enable the eye to separate one form from another. For these, therefore, I prefer retaining the old name of *Clytus*. *Aridæus* and *Demonax* may be accepted, although the limits of the latter are not very satisfactory. In this case it will be necessary to separate *Clytus diophthalmus*, a remarkable form, and one of the most distinct of the whole group. This genus I have named as above *Cremys*, which, with a habit slightly resembling *Aridæus*, but with another style of coloration, differs technically in the absence of spines to the antennæ and the non-clavate femora.

The doubtfully indigenous species are

*Clytus sexmaculatus*, Don. Apparently unknown to every one.

—— *glaucinus*, Boisd. Said to be from Australia by MM. Laporte and Gory. The habitat of Boisduval's specimen was unknown to him.

—— *Durvillei*, Lap. & Gory. "Rawak, New Guinea." In the British Museum, ticketed "Rockingham Bay."

—— *annulosus*, Fab. According to Boisduval, found at "Port Jakson." Is a very common species all over India and the islands down to New Guinea.

—— *attenuatus*, Boisd. As the author thinks this ought probably to form a new genus, we may be quite sure it has nothing to do with *Clytus*.

—— V-*album*, Boisd. From Hobart Town. Apparently belongs to the genus *Zoëdia*.

# JOURNAL OF ENTOMOLOGY.

No. XI.—December, 1864.

## XX.—*Descriptions of New Australian* Phytophaga.

By the Rev. Hamlet Clark, M.A., F.L.S.

[Plate XII.]

The following paper contains, for the most part, descriptions of new Australian Phytophaga which I obtained in M. Damel's collection some months ago, and which are now in Mr. Baly's cabinet and my own. But a very small portion of his insect-boxes contained Phytophaga; nevertheless among them were many new species, and some entirely new forms. Australia is not (like Europe) almost exhausted as to our knowledge of its genera. When we see on the map the comparatively small spots of that vast region which have supplied to our cabinets the Australian species that adorn them, and remember that even from *these* districts no collection is ever sent home without some, it may be several, novelties, we have no difficulty in believing that the number of species yet to be discovered in this interesting continent far exceeds the total number of the species we are as yet able to register. I suppose that, respecting Phytophaga, we may safely assert (what certainly we cannot say of every family of Coleoptera) that all the material which has been, or which is being placed in English collections is already fairly worked out (with the exception, certainly, of *Paropsis*, which at present, for lack of knowledge, combined with the *over*-abundance of material, *cannot* be accomplished); no collections sent to this country are suffered to remain unused; and the natural and happy consequence is, that our valued friends and correspondents in Australia are themselves giving perhaps more attention than before to these interesting forms: we can assure them that their work is not unappreciated in Europe.

The following are among the most interesting additions to the group:—

Fam. **Sagridæ.**

Genus Mecynodera, Hope.

*M. Balyi*, n. sp. (Pl. XII. fig. 1.)

*M.* elongato-ovata, rufa, nitida; capite producto, nigro: thorace elongato-quadrato, angulis anticis haud acutis, lateribus ad medium subconstrictis, disco post medium transverse depresso, impunctato, nigro, ad medium (præsertim ad basin) nigro; scutello nigro: elytris thorace duplo (ad humeros) latioribus et triplo longioribus, apud humeros oblique ad suturam mediam versus impressis vel corrugatis, maculis ordinatis quasi punctorum seriebus indistincte ornatis, plagis undique 5 nigris, 1ma apud scutellum, minuta subcirculari; 2da a basi media (juxta humeros), obliqua vel oblique arcuata ad suturam ante medium; 3tia ad marginem, circulari (hac aliquando fortasse cum 2da confluente); 4ta transversa latiore, postmedia; 5ta ante apicem, lata, brevi: sutura margineque ad apicem tenuiter etiam nigris vel nigro-fuscis: corpore nigro, subtus pedibusque pubescentibus; abdomine rufo, segmento ultimo fusco-nigro; pedibus nigris, femoribus rufis; antennis robustis, nigris.
Long. corp. 5 lin., lat. $2\frac{1}{4}$ lin.

A form of this handsome genus which is obviously different from the previously described species *M. coxalgica*; the pattern of its markings, its size, and its greater breadth amply separate it. I received specimens from the collection of Damel, by whom it was taken (with many examples of *coxalgica*) from the twigs, not the flowers, of shrubs, and was, as he informed me, far from uncommon: the genus would seem to have the habit as well as almost the form of a Longicorn; the insects, when disturbed by the entomologist, grip the leaf or bark tightly with their legs, so that it is impossible to obtain them by beating or brushing: M. Damel took his by carefully looking for them when he had discovered their special habitat. Of *coxalgica* he took two distinct forms—the commoner one described by M. Lacordaire, in all its varieties of colour, and also a *second*, exactly similar in pattern to the well coloured examples, but very minute (at least, half the size); and he assured me that these two forms were taken by him from *two different trees*, which led him to consider the two as separate species. The five examples of *M. Balyi* which his collection contained manifested no variety of pattern or size.

I have pleasure in naming this beautiful species after my friend Mr. Baly of Kentish Town, to whom I am indebted for much valuable information respecting Phytophaga.

## Fam. Crioceridæ.

### Genus Crioceris, Geoff.

1. *C. fusco-maculata*, n. sp.

*C.* oblongo-parallela, punctata, flava, nitida; capite nigro, antice pubescente, ad basin undique oblique foveolato: thorace subquadrato, ad latera coarctate, ad basin modice arcuato, sparsim et tenuiter punctato; scutello minuto, elongato-triangulari, fusco: elytris parallelis, convexis, leviter punctato-striatis (punctis sat distinctis, distantibus, apicem versus et ad marginem obsoletis); macula undique inter striam 5tam et medium marginem, nigra, marginem haud attingente, subcirculari: corpore subtus fusco-nigro, abdominis segmentis rufo-fuscis; pedibus nigris, femoribus flavis; antennis nigris.

Long. corp. 4 lin., lat. $1\frac{3}{4}$ lin.

A species nearly related to *C. nigripes*, Fab., and to be placed in the subsection of the genus that contains our European *merdigera* and 12-*punctata*: it differs from *nigripes*, Fab. (which also is found in New Holland), not only by its coloration (the head being black instead of flavous, the hue of its elytra darker and less bright flavous, and its two circular markings), but also in structure: of the thorax the front is not so broad, and the medial constriction not so angular, the surface also is not levigate, but finely punctate; in the elytra the punctures are deeper, larger, and more widely separated.

I received two examples from Damel's collection, taken by him in New South Wales, where doubtless further research will discover other species that belong to this, M. Lacordaire's Subgroup iii. of the genus.

In the collections of Mr. Baly and Rev. H. Clark.

2. *C. multipunctata*, n. sp.

*C.* oblonga, parallela, crebre et fortiter punctata, rufo-flava, nitida: capite inter oculos obscure transverse depresso, rufo-ferrugineo, labro et apice nigris: thorace subquadrato, lateribus ad medium vel potius pone medium valde constrictis, ad basin transverse fortiter foveolato, impunctato; scutello subtriangulari, nitido: elytris parallelis, fortiter et crebre punctato-striatis: corpore subtus, pedibus anticis et mediis antennisque fuscis, antennarum art. basalibus 4, genibus mediis pedibusque anticis flavis vel rufo-flavis.

Long. corp. $2\frac{1}{4}$ lin., lat. $\frac{3}{4}$ lin.

A species that will be placed at the end of the fourth subgroup of Lacordaire's arrangement. I received a single specimen from Damel's collection, taken by him in New South Wales.

Fam. **Chrysomelidæ.**

Genus Paropsis, Oliv.

*P. purpureo-viridis*, n. sp.

*P.* ovalis, leviter punctato-striata, purpureo-viridis, nitida; capite fortiter punctato, nigro: thorace lateribus undique rotundatis, tenuiter marginatis, antice circulariter excavato; disco subtilissime punctato, latera versus sparsim sed fortiter punctato, æneo-nigro; scutello subtriangulari, lævi, nitido: elytris subtiliter punctato-striatis, interstitiis minutissime punctatulis; purpureo-viridibus, ad suturam (juxta scutellum) et ad marginem latius viridi-æneis: corpore subtus, pedibus antennisque nigris.

Long. corp. 6 lin., lat. 4 lin.

Species of this vast and very difficult genus *Paropsis* have been described by different authors, as Olivier, Erichson, Germar, Marsham, Stâl, and Newman. The nomenclature is very confused; and what is worse, the insects themselves change in colour and pattern entirely after death. Some day we may hope, by the patient perseverance of students at home aided by figured representations *of the living insects* from Australia, to attain to a true knowledge of the several species: in the mean time it will probably be better to wait, rather than attempt to unravel the skein with some probability of failure.

The species before us is therefore the only one, of some thirty or fifty from Damel's collection, which I propose to describe here. It is singularly abnormal in colour, and to be confounded with no other examples that have ever been sent to England. It was taken in North Australia.

Let me express an earnest wish that some of our valued correspondents, as Mr. MacLeay, Mr. Wilson, Rev. W. King, or Mr. Diggles, may be induced to turn their attention to this specially Australian group. I would ask them to be so good as *fully* to *describe* the *living* insect; and then if they would entrust the insects so described, *with their descriptions*, to some competent Coleopterist in Europe, who could attack the literature of the subject, we should have reason to expect that the problems might be solved.

Genus Chalcolampra, Blanch.

*C. verrucosa*, n. sp. (Pl. XII. fig. 2 et *a*.)

*C.* oblongo-ovalis, punctato-striata, verrucosa, nigra vel æneo-nigra, nitida; capite inæqualiter rugoso, punctato; thorace lato, lateribus rotundatis, disco inæqualiter granulato, fortiter punctato (ad discum medium sparsim, ad latera crebre), scutello parvo; elytris elongatis, ad

apicem attenuatis, punctato-striatis, punctis magnis haud profundis, verrucarum etiam seriebus quatuor; verrucis depressis, ad marginem penitus obsoletis; corpore subtus, pedibus antennisque nigris vel æneo-nigris.
Long. corp. 4 lin., lat. 2 lin.

This species has been received, as well as from Damel's collection, by Mr. Baly and myself from Mr. Stevens, who obtained it from Australia.

Genus Australica, Chevr.

1. *A. pyrrhocephala*, n. sp.

*A.* lata, sat depressa, parallela, punctata, æneo- vel cyaneo-nigra; capite inter oculos transverse foveolato, punctato, rufo: thorace transverso, lateribus parallelis, angulis anticis prominulis; disco punctato, ad latera fortius impresso; scutello subcordiformi: elytris thorace vix latioribus, ad apicem rotundatis, punctatis, æneo- vel cyaneo-nigris: corpore subtus viridi-æneo, nitido; abdominis segm. ultimo pedibusque nigris; antennis robustis, ad apicem subincrassatis, fuscis vel nigro-fuscis.
Long. corp. 3 lin., lat. 2 lin.

*A. pyrrhocephala* will be placed next to *A. ruficeps*, Boisd. Voy. d'Astrolabe, p. 578; Baly, Ent. Tr. iii. p. 247. The only examples that I know of the species were received from the neighbourhood of Sydney by the Marquis La Ferté, in whose collection they were. In the cabinets of Mr. Baly and the Rev. H. Clark.

2. *A. paropsoides*, n. sp.

*A.* ovalis, confertissime et fortiter punctata, rufo-ferruginea; capite punctato, labro flavo: thorace longitudinis fere duplo latitudine, lateribus caput versus arcuato-angustatis, leviter marginatis, angulis anticis prominulis; disco crebre, ad latera sparsim fortiter punctato; scutello lævi: elytris amplis, parallelis, ad apicem rotundatis, crebre et fortiter punctatis (punctis inter se sæpius rugis brevibus transversis connexis), rufo-ferrugineis, ad latera et apicem fusco adumbratis: corpore subtus, pedibus antennisque (his art. 8–11mum fuscis) flavis vel rufo-flavis.
Long. corp. 4¼ lin., lat. 3 lin.

A single specimen, apparently from New South Wales, but without a ticket, in Damel's collection.

Genus Chalcomela, Baly.

*C. pilula*, n. sp. (Pl. XII. fig. 4 et *d.*)

*C.* ovalis, fere rotundata, punctata, æneo-nigra, nitida; capite irregulariter punctato; thorace transverso, rotundato, tenuiter marginato, ad discum subtilissime et æqualiter, latera versus rarius et fortiter punctato, scutello transverso-triangulari; elytris punctato-striatis, punctis di-

stantibus, intervallis inæqualibus; corpore subtus, antennis pedibusque æneo-nigris.

Long. corp. $2\frac{1}{3}$ lin., lat. 2 lin.

Swan River and New South Wales are the two localities with which my examples are registered. The species is also in the cabinet of Mr. Baly.

### Fam. **Eumolpidæ.**

#### Genus Rhyparida, Baly.

I think that the species composing this genus may eventually be divided into two genera. The following, however, is a true *Rhyparida*, closely resembling in form Mr. Baly's type *R. dimidiata*.

#### *R. nitida*, n. sp.

*R.* oblonga, parum convexa, punctato-striata, æneo-nigra, nitida; capite inter oculos longitudinaliter foveolato, subtilissime punctato; thorace transverso, longitudinis dupla latitudine, lateribus haud parallelis, rotundatis et tenuiter marginatis, angulis anticis distinctis, disco lævi subtiliter punctato; elytris latis, punctato-striatis (punctis obscuris, haud profundis, et apicem versus penitus obliteratis); corpore subtus pedibusque æneo-nigris; antennis fuscis, articulis ad basin flavis.

Long. corp. $2\frac{3}{4}$ lin., lat. 1 lin.

Shorter, less distinctly punctate, and darker in colour than *viridiænea*, Blanch., which is clearly punctate-striate throughout, and in colour of a dull metallic green.

I have received both these insects from New South Wales.

### Subfamily Typophorinæ, Baly.

#### Marsæus, nov. gen.

Generi *Rhyparidæ* (Baly, Journ. Ent. 1861, p. 286) approximans, sed paulo elongatus, thoracisque marginibus haud rectis et parallelis aut subparallelis (ut in specie *R. grandi*), sed vel rotundatis vel rotundato-angulatis. Differt a proxim. genere *Febra* thorace subquadrato, non transverso, elytris coarctiore, marginibus (ut in g. *Damelia*) ad humeros haud attingentibus.

*Corpus* subparallelum, nitidum, plerumque punctate striatum. *Caput* verticale; *antennis* filiformibus, modice attenuatis, art. 1mo crasso, art. 2do et 3tio subæqualibus (in *Rhyparida* art. 3tio et 4to æqualibus, art. 2do minore). *Thorax* subquadratus, vel apicem versus angustior, lateribus *anguste* marginatis, haud rectis sed subangulatis, interdum etiam rotundatis. *Elytra* sat parallela, et ad apicem rotundata (haud ut in *Rhyparida grandi* apicem versus angustata). *Pedes* robusti, *femoribus* posticis subincrassatis; *tibiis* posticis et mediis margine exteriore ad apicem dentatis; *unguiculis* distincte dentatis.

In facies these insects, which seem to me to require the erection of a separate genus, are clearly allied to *Rhyparida* of Mr. Baly; but while they have a remarkable constancy of form *inter se*, they all manifestly diverge from the form of *R. grandis*, and also from the type form of *R. dimidiata*. The following species are narrower, slightly more cylindrical, the upper surface not so depressed; the elytra are parallel, not attenuated towards the apex, and not much broader than the base of the thorax (those of *Rhyparida grandis* being at least one-third broader than the thorax); in no case is the form of the thorax transverse as in *R. dimidiata*, it is quadrate or subquadrate as in *R. grandis*, but differs from that species in its sides being rounded or almost angulated, and not straight and parallel.

Type, *M. Didymus*, Fab. (*Cryptocephalus*) Syst. Eleut. ii. 43. 11. (Type in Brit. Mus.)

1. *M. vittatus*, Blanch. Voy. au Pôle sud, iv. p. 327. 19. 4.

This is apparently a common as well as variable species found throughout the northern regions of Australia. It has been received by Mr. Bakewell, Mr. Baly, and myself from our correspondents.

2. *M. nigro-cyaneus*, n. sp.

*M.* sat robustus, parallelus, punctate striatus, nigro-cyaneus, nitidus; capite verticali, inter oculos ad medium longitudinaliter foveolato: thorace late ad latera rotundato et leviter marginato, sparsim et *minute* punctato; scutello plano, magno, subcordiformi: elytris robustis, parallelis, humerorum angulis e thorace sejunctis, fortiter punctate striatis: corpore subtus, pedibus antennisque nigris.

Long. corp. 4 lin., lat. 2 lin.

Not uncommon, probably, in New South Wales. In the collections of Mr. Baly, Mr. Bakewell, the Rev. T. A. Marshall, and the Rev. H. Clark.

3. *M. rufus*, n. sp.

*M.* oblongus, sat parallelus, robustus, punctate striatus, nitidus, fusco-rufus vel rufus; capite verticali, antice rugoso, inter oculos longitudinaliter foveolato; thorace subquadrato (in ♂ attenuatiore), ad latera antice et pone valde constricto (ad medium rotundato-angulato), lateribus tenuiter marginatis, disco subtilissime punctato, scutello magno subcordiformi; elytris thorace paulum latioribus, humeris anticis prominulis, fortiter punctato-striatis; corpore subtus rufo; pedibus nigris, femoribus ad basin aliquando rufo-nigris; antennis nigris.

Long. corp. $3\frac{3}{4}$ lin.; lat. ♂ $1\frac{2}{3}$, ♀ 2 lin.

I have before me the two sexes of this species: the male is slightly smaller, narrower, and more compact; the thorax is narrower in pro-

portion to the elytra, and rather more quadrate. The species has been taken by M. Damel in New South Wales; and is in the cabinets of the Rev. T. A. Marshall, Mr. Baly, and the Rev. H. Clark.

4. *M. ruficollis*, n. sp.

*M.* oblongus, sat parallelus, robustus, punctato-striatus, viridi-æneus; capite impunctato, ad medium foveolato, rufo; thorace subquadrato, antice constricto et rotundato, lateribus in ♂ ad medium rotundato-angulatis, tenuiter marginatis, disco subtilissime punctato rufo opaco; scutello semicirculari, lævi, rufo; elytris thorace paulo latioribus, parallelis, punctato-striatis, punctis sat magnis et distinctis, ad apicem et in ♀ juxta humeros fusco vel rufo-fusco adumbratis; corpore subtus rufo (abdomine fusco); pedibus antennisque pallide rufis, harum articulis ultimis rufis.

Long. corp. 3 lin., lat. $1\frac{2}{3}$ lin.

Although very distinct in coloration from the preceding species, yet the almost complete similarity in general form would suggest that the species before us might be merely a modified pattern of *M. rufus*, differing from it in colour only; a more careful examination, however, will give clear marks of separation: when *M. ruficollis* and *M. rufus* are viewed sideways, it will be seen that the line of the margination of the thorax is in *M. rufus* curved, rising upwards towards the humeral angles, while in *M. ruficollis* (the species before us) this line of margination is *straight* both in ♀ and ♂. From *M. nigro-cyaneus* it may also be separated by its generally smaller size.

This species was also taken by Damel in New South Wales, and is in the cabinets of Mr. Baly, the Rev. T. A. Marshall, and the Rev. H. Clark.

5. *M. simplex*, n. sp.

*M.* ovalis, parallelus, punctato-striatus, rufo-niger, nitidus; capite inter oculos foveolato, impunctato; thorace transverso, lateribus rotundatis et tenuiter marginatis, disco subtilissime et æqualiter punctato; scutello subcordiformi, lævi; elytris parallelis, ad apicem rotundatis, punctato-striatis (punctis distinctis, æqualibus); corpore subtus rufo-fusco, abdominis segm. ultimo rufo; pedibus flavis, genibus tibiarumque apicibus fuscis; antennis fuscis, art. 1–4$^{\text{tum}}$ flavis.

Long. corp. 3 lin., lat. $1\frac{1}{2}$ lin.

I have little doubt that this species together with *M. flavus* of this paper will hereafter constitute a new genus. The facies of the insects are manifestly different from that of *Rhyparida* on the one hand, and also (but less sensibly so) of *Marsæus*: there is a breadth of thorax which gives a *parallel form* to the species, separating them somewhat from the previous species of this group, and also from the

forms arranged under *Rhyparida*; but inasmuch as more species seem to be required before the question can be satisfactorily cleared up, I prefer to leave its decision to Mr. Marshall, who is specially occupied with the group, and to register them provisionally under the present genus.

Two examples of *M. simplex* were taken by Damel in North Australia. An example is in Mr. Baly's collection, and also in my own.

6. *M. rufo-flavus*, n. sp.

*M.* ovalis, robustus, punctatus, rufo-flavus, subnitidus; capite inter oculos transverse necnon longitudinaliter foveolato; thorace lateribus ad medium rotundatis et antice attenuatis, transverso, impunctato; scutello subtriangulari, lævi; elytris robustis, parallelis, brevibus, apice rotundatis, punctato-striatis, punctis post medium obsoletis; corpore subtus, pedibus antennisque rufo-flavis.

Long. corp. $2\frac{1}{4}$ lin., lat. $1\frac{1}{4}$ lin.

A single species from the Marquis La Ferté's collection is labelled "New Holland:" it is also, I believe, in Mr. Bakewell's collection and that of Mr. Baly.

7. *M. flavus*, n. sp.

*M.* oblongo-ovalis, parallelus, leviter punctatus, stramineo-flavus, subnitidus; capite inter oculos longitudinaliter foveolato, impunctato; thorace latitudine elytris fere æquali, lateribus rotundatis marginatis, impunctato; scutello subcordiformi; elytris parallelis, tenuiter et regulariter punctato-striatis; corpore subtus, pedibus antennisque flavis, genibus antennarumque articulis 6–11$^{mum}$ fuscis.

Long. corp. $2\frac{1}{2}$ lin., lat. $1\frac{1}{2}$ lin.

There is a greater breadth of thorax, and hence a difference of facies between this and the preceding species; but as in all other respects it agrees with my definition of *Marsæus*, I prefer to deal with it as an aberrant form of this group, rather than seek to erect it into a separate genus.

I have received the species from New South Wales.

Genus Damelia.

Novum genus *Eumolpidarum* generibus *Nodostomati* Motsch. et *Basileptæ* Balyi approximans; ovale. *Caput* prominulum, perpendiculare, ad apicem attenuatum; *oculi* circulares; *antennæ* filiformes, sat robustæ, articulis apicalibus vix incrassatis. *Palpi maxillares* articulo 1$^{mo}$ elongato, 2$^{do}$ brevi, minuto, 3$^{tio}$ ad apicem attenuato. *Thorax* fere quadratus, antice penitus constrictus, lateribus rotundatis haud marginatis, disco in *D. Marshalli* rugoso. *Scutellum* subcordiforme, læve. *Elytra* thorace latiora, humeris exstantibus, versus apicem subattenuata,

modice convexa. *Pedes* elongati, robusti; *femoribus* apicem versus incrassatis; *tibiis* elongatis, lente arcuatis, mediis et posticis ad apicem externa parte dente brevi armatis; *tarsis* robustis, articulo penultimo bifido; *unguiculis* mucronatis, in typo anticis bidentatis et posterioribus appendiculatis.

*Basilepta* of Baly, of which an excellent figure is given in the Journal of Entomology, vol. i. pl. 1. fig. 1, is found in Borneo, and is evidently allied to *Damelia*, a Fiji Island form. The above diagnosis will, however, point out several points of difference. In the genus before us the antennæ are much less filiform, the body is a trifle shorter, less attenuate in proportion to its length; the legs (though longer than in many genera of Eumolpidæ) are not *so* long as, and are more robust than, those of *Basilepta*: there is no trace of any toothing on the femora; the two hinder pairs of tibiæ, however, are armed with a short spine near the apex. In the type, *D. Marshalli*, the claws also differ from those of *Basilepta longipes*.

*D. Marshalli*, n. sp.

*D.* ovalis, crebre et irregulariter verrucosa et punctata, nigro-ænea vel purpureo-nigra, nitida; capite crebre punctato, punctis aliquando quasi confluentibus; thorace elytris duplo fere angustiore, lateribus rotundatis haud marginatis, antice et ad basin contractis, disco fortiter et dense punctato et tuberculis quoque tribus, una media antice, aliisque undique medium juxta; scutello subtriangulari, punctato; elytris sat latis, latitudine thorace duplo fere majoribus, humeris exstantibus, lateribus parallelis, ad apicem rotundatis, fortiter et crebre punctatis, tuberculis quibusdam oblongis (irregulariter dispositis, veluti striis incertis instructis), elytris ad apicem tenui pube vestitis; corpore subtus rufo-nigro; pedibus rufis vel fusco-rufis; antennis fusco-rufis, art. 9–11mum flavis.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{4}$.

This pretty little species was taken sparingly in the Fiji Islands by M. Damel, who communicated examples of it to me, and also to Dr. Dohrn, of Stettin. I have seen five examples, which do not differ from one another, except slightly in the colour of their legs. In naming it after my friend the Rev. T. A. Marshall, I desire to express the pleasure with which we all welcome him as a fellow worker among the Phytophaga, and as the special occupant of a group which, above all, demands and will reward his patience and untiring perseverance.

In the collections of the Rev. T. A. Marshall, Mr. Baly, and the Rev. H. Clark.

Fam. **Gallerucidæ.**

Genus Galleruca, Fab., Redt.

*G. semipullata*, n. sp.

*G.* oblongo-ovalis, pube densa vestita, nigra; capite proclivi, supra labrum iterumque inter oculos transverse foveolato, supra antennarum basin pube vestito, fusco; thorace transverso, ad basin subcoarctato (angulis anticis et basalibus distinctis), lateribus lente arcuatis, in disco juxta angulos posteriores depressione lata transversa (hæc depressio utrinque longitudinaliter vel subcirculariter carinata est), sparsim (sed ad latera crebrius) punctato, pube rariore vestito, fusco; scutello subcordiformi, pallide pubescente, nigro; elytris sat latis, parallelis, pube densa pallide flava vestitis (infra pubem elytra ipsa quasi subtiliter granulata videntur), nigris, vitta media communi lata oblique notata ab humeris undique ad apicem ipsum rufo-fusca; pedibus rufo-fuscis; corpore subtus antennisque nigris.

Long. corp. lin. 5, lat. lin. $2\frac{1}{4}$.

A common and well-known species from North Australia, which would appear to have been hitherto undescribed.

Genus Menippus.

Novum genus *Gallerucidarum* (generi *Gallerucæ* Fab. et Redt. affine), latum, robustum, parallelum. *Caput* proclive; *antennis* brevibus filiformibus; *oculis* rotundatis. *Thorax* elytris angustior, transversus, antice contractus et ad media latera vel geniculatus vel rotundatus; *scutello* triangulari. *Elytra* lata, sat convexa, brevia, lateribus parallelis. *Pedes* robusti, simplices; *tarsis* brevibus (articulo 2do brevi, triangulari, 3tio bifido); *unguiculis* breviter bihamatis.

Genus Australasiæ. Typus *Menippus Cynicus.*

A form which is allied to *Galleruca* proper by its robust and parallel elytra and general form: it differs from it by being broader and comparatively shorter; the tibiæ also are decidedly shorter, and the unguiculi are bifid, the claw being divided on either side at the apex into two strong, short hooks, not narrower and simple as in *Galleruca.*

*M. Cynicus*, n. sp.

*M.* late ovalis, robustus, punctatus, pube flava vestitus, fusco-flavus; capite antice producto, inter oculos longitudinaliter foveolato; thorace transverso, margine basali subcirculari, antico excavato, lateribus rotundatis, ad mediam basin longitudinaliter late foveolato; scutello triangulari; elytris latis; corpore subtus pedibusque nigro-fuscis; antennis testaceis.

Long. corp. lin. $4\frac{1}{2}$, lat. lin. $2\frac{3}{4}$.

A species notable by its breadth of form, its uniform coloration of fusco-flavous, and its complete covering of pale pubescence. It has

been received from Port Dennison by Mr. Baly, Mr. Bakewell, and myself.

Genus Adorium, Oliv.

1. *A. dorsosignatum*, n. sp.

*A.* ovale, lateribus sat rotundatis, impunctatum, nigrum, flavo notatum; capite fronte longitudinaliter foveolata, flavo; thorace transverso (lateribus arcuatis et submarginatis), nigro, lateribus margineque anteriore flavis; scutello triangulari, nigro; elytris impunctatis, nigris, sutura, marginibus et basi (latius) flavis; pedibus nigris (femoribus basalibus flavis); corpore subtus nigro, prosterno medioque metasterno flavis; antennis fusco-nigris, articulis basalibus fuscis.

Long. corp. lin. $4\frac{1}{2}$, lat. lin. $2\frac{3}{4}$.

A species sent home frequently from Moreton Bay by Mr. Diggles. I have also received it by the kindness of Miss Delpratt, residing in the interior of Queensland.

2. *A. Fryii*, n. sp.

*A.* late ovale, leviter punctatum, flavo-stramineum, vittis 4 nigris, nitidum; capite inter oculos longitudinaliter foveolato, flavo; thorace breviter transverso, lateribus subparallelis et marginatis, angulis anticis prominulis, posticis rotundatis, in disco medio marginem versus anteriorem lata et transversa fovea (quæ, haud margines attinet apud terminum undique profundior), disco obscure punctato, pallide flavo, transverse nigro adumbrato; scutello triangulari, flavo; elytris satis amplis, leviter sed confertissime punctatis, testaceo-flavis, vittis undique duabus nigris basin sed haud apicem attingentibus, et ad apicem inter se coëuntibus; vittis rectis, parallelis, æqualibus, marginibus vix definitis sed quasi suffusis; corpore subtus flavo, fusco adumbrato; pedibus flavis, tarsorum lateribus exterioribus fuscis; antennis nigro-fuscis, art. 1mo et 2do flavis.

Long. corp. lin. $4\frac{3}{4}$, lat. lin. $2\frac{3}{4}$.

Although at first sight almost identical with *A. seminigrum*, yet quite a distinct species: the markings of the head are different; in the thorax the peculiar transverse depression has no existence in the latter species. I think I can trace a slight want of similarity in the punctuation; at all events the colouring of the two insects is in detail different—flavous instead of rufous, and suffused instead of sharply defined bands; the colouring also of the legs and underside is different. My friend Mr. Alexander Fry of Kensington has, with many other interesting species from his almost unrivalled collection, added also this to my cabinet. He received the insect from Queensland.

3. *A. seminigrum*, n. sp.

*A.* late ovale, leviter punctatum, læte flavum, vittis 4 nigris; capite transverse foveolato, flavo; thorace parvo, lateribus *leviter* rotundatis, lateribus et margine anteriore marginatis, disco leviter punctato plano (un-

dique ad medium obscure depresso), nigro, marginibus rufo-flavis; scutello triangulari, lævi, rufo; elytris sat latis, obscure punctatis, rufis, vittis undique 2 nigris rectis parallelis juxta apicem junctis sed haud apicem attingentibus; corpore subtus fusco-flavo, mesosterni epipleuris fuscis; pedibus nigris, femoribus ad basin flavis; antennis fusco-nigris, art. 1–3tium fulvis.

Long. corp. lin. $4\frac{3}{4}$, lat. lin. $2\frac{3}{4}$.

I have no doubt of the stability of both the above species, *seminigrum* and *Fryii*; nevertheless they are closely allied. It would be very interesting if Mr. Diggles, or some other naturalist in Queensland, would kindly examine the question, and note so far as is possible the food plant of the species. Queensland is in a sufficiently northern latitude to lead us to expect that *several* species of this handsome group may be discovered there.

I have an example in my cabinet from the collection of the Marquis La Ferté, labelled "New Holland."

4. *A. lætabile*, n. sp.

*A.* late ovale, punctatum, cæruleum, nitidum; capite inter oculos transverse depresso, læte rufo; thorace lateribus rotundatis, marginatis, impunctatis, disco medio undique leviter depresso, læte rufo; scutello triangulari, lævi, rufo-fusco; elytris crebre et subtiliter punctatis, cæruleis, nitidis, *tenuiter* rufo marginatis (marginibus haud apicem attingentibus); corpore subtus pedibusque rufis, abdomine nigro; antennis rufo-fuscis, art. 1–3tium rufis.

Long. corp. lin. 4, lat. lin. $2\frac{1}{2}$.

So brief are the descriptions that have been published of exponents of this genus by authors, that in the absence of typical specimens it is doubtful whether any species has been previously recorded. Blanchard, in the 'Voy. au Pôle sud,' has described a species, *A. limbatum*, from New Guinea which is very nearly related to *A. cinctum* of Baly, described in this Journal; it is probable that as there is a difference in the breadth of the flavous margination of the elytra, other differences may arise which will prove the two to be distinct; at any rate the species before us is abundantly different from *A. cinctum*. By the kindness of my friend Mr. Baly I possess a type specimen of this species: it is broader, more distinctly punctate, the flavous margin extends to the apex, the last segment of the black abdomen is fuscous; the coloration also differs in hue from the species before us.

I possess two examples of this insect—one, from the La Ferté collection, from the island Woodlark, the other, from Damel's collection, from New South Wales—showing that the species has, like some of its congeners, an extensive range of habitat.

### Genus Rupilia.

Genus novum generi *Metaleptæ* Baly, et *Gallerucæ* Fab. et Redt., approximans. *Corpus* elongato-ovale. *Caput* proclive. *Thorax* quadratus vel subquadratus, ad latera rotundatus; *scutellum* transversum, subcirculare. *Elytra* in ♂ robusta, subparallela; in ♀ brevia, ad apicem dehiscentia, abdomen haud tegentia. *Pedes* sat elongati, robusti; *tarsis* brevibus; *unguiculis* leviter infra appendiculatis.

*Rupilia* is one of the few genera in which the elytra of the ♀ do not cover the entire body; and in this respect it is nearly allied to *Metalepta*, Baly (Journ. Entom. i. p. 205, pl. xi. fig. 9), which consists of two species from Peru. The genus before us is less parallel in form; the sides of the thorax are not parallel, but rounded; and the form of the elytra is different. Type of genus, *Rupilia ruficollis*.

1. *R. ruficollis*, n. sp. (Pl. XII. fig. 3 et *b*.)

♀ tantum adest. *R.* ovalis, punctata, rufa; capite inter oculos transverse punctato, ad basin nitido, rufo vel fusco-rufo; thorace quadrato, lateribus subtiliter rotundatis, antice et ad basin ad medium emarginato, ad medium discum inæqualiter transverse undique depresso, fortiter et crebre punctato, rufo; scutello transverso, subtiliter et sparsim punctato, rufo; elytris brevibus, apicem versus valde dehiscentibus, fortiter et crebre punctatis, nigro-cæruleis, nitidis; abdomine desuper fusco-rufo, segmentis fusco adumbratis; corpore subtus rufo; pedibus nigris, femoribus versus basin rufis; antennis nigris, articulis 1–4^tum^ rufo-fuscis.

Long. corp. lin. 4–5¼, lat. lin. 2–2¾.

The bright-blue elytra and red thorax and abdomen of this handsome species at once characterize it. Apparently not rare in New South Wales.

In the cabinets of Mr. Baly, Mr. Bakewell, and Rev. H. Clark.

2. *R. viridi-ænea*, n. sp.

♂. *R.* ovalis, subparallela, fortiter punctata, nigro-ænea, nitida; capite inter oculos transverse foveolato, punctato; thorace transverso, rectangulari, marginibus (antico et postico) parallelis *rectis*, lateribus ad medium angulatis, et disco undique versus latera late oblique depresso, crebre punctato, antice et postice tenuiter rufo-fusco; scutello transverso, arcuato, punctato, rufo-fusco; elytris parallelis, brevibus (haud ad apicem abdominis attingentibus), parum rotundatis, fortiter et crebre punctatis, ad apicalem suturam dehiscentibus; corpore subtus, pedibus antennisque nigris.

Long. corp. lin. 4, lat. lin. 2.

*R. viridi-ænea* differs from *ruficollis* not only in colour, but in the form of the thorax: the anterior and basal margins are not excavated medially; the sides, instead of being rounded, are bent into

an angle; and the discal depression on either side is oblique rather than transverse.

I am indebted to my friend Mr. Bakewell, who so liberally places his collections and his excellent library at the service of his brother entomologists, for this interesting addition to my cabinet. Mr. Bakewell received the species (I believe, from Dr. Howitt) from New South Wales.

## Fam. **Halticidæ.**

### Genus Eratosthenes.

Genus *Halticidarum* novum, subfamiliæ iii. *Cæsarum* Illigeri, generi *Crepidoderæ* affine, ovale vel elongato-ovale. *Caput* proclive, antice productum; *antennis* filiformibus, robustis. *Thorax* latitudine elytra æquat, lateribus caput versus penitus rotundatis, marginatis; sulco basali transverso, undique abbreviato. *Elytra* ovata, modice ad apicem attenuata, punctis ornata. *Pedes* robusti; *femoribus* posticis infra juxta apicem dente acuto armatis; *tibiis* posticis longitudinaliter carinatis necnon curvatis.

Hardly any of the several interesting Australian forms of Halticidæ have yet been characterized; the present differs from *Arsipoda* of Erichson, not only by the articulation of its antennæ, but also by the basal transverse groove of the thorax, which would place it in a separate subsection of Illiger; *Arsipoda* presents no trace of a thoracic groove: of the antennæ of *Eratosthenes* the second joint is decidedly shorter and smaller than that of *Arsipoda*; the elytra also are punctate-striate, not entirely levigate.

### *E. flavus*, n. sp. (Pl. XII. fig. 6 et *f*.)

*E.* ovalis, flavus vel rufo-flavus; capite impunctato, rufo-fusco; thorace lato, lateribus subrotundatis et late marginatis, fovea transversa ad basin minuta abbreviata, disco subtilissime punctato; scutello minuto, fusco; elytris ad apicem subacuminatis, maculis minutissimis (velut punctis striate ordinatis) ornatis; pedibus robustis, rufo-flavis; femoribus posticis calcari undique subtus armatis; corpore subtus rufo-fusco; antennis fuscis, ad basin rufis.

Long. corp. lin. $2\frac{1}{5}$, lat. lin. 1.

Four examples were taken by Damel in New South Wales. In the cabinets of Mr. Baly and the Rev. H. Clark.

### Febra, nov. gen. (Pl. XII. fig. 5.)

Robusta, parallela, nitida. *Caput* verticale et ad frontem fortiter angulatum vel etiam productum; *oculi* sat magni, rotundati, integri. *Palpi maxillares* graciles, art. ultimo attenuato. *Antennæ* longissimæ, corporis longitudine dupla majores; articulus basalis apicem versus incrassatus est; 2dus brevis; ultimus elongatus, attenuatus, ad apicem ipsum breviter inflectitur. *Thorax* latus, subrotundatus, ad latera marginatus.

*Scutellum* subcirculare. *Elytra* lata, robusta, sat parallela. *Pedes unguiculis* ad basin calcaratis.

Remarkable among the whole of the Halticidæ for its peculiarly shaped head and its enormous antennæ, which exceed in length twice the length of the body; the head is vertical, with a somewhat produced and compressed labrum, the crown is prominent, and (when viewed sideways) is produced forward so as to form a ridge between the eyes, at the apex of which are placed the antennæ. There is in the shape of the head a singular identity of form between the Fiji insect, which is the exponent of the genus before us, and the South-American form *Loxoprosopus*: in each the antennæ are marvellously developed, and we may suppose that *by reason* of these heavy, jointed antennæ the front of the head, from which they take their rise, should have special strength, and probably on this account assumes a particular and abnormal form: at all events in each of these genera, both manifestly approaching the Longicornia in the length of the antennæ, is found the peculiar-shaped head which is the common type of the head of the Longicornia.

This, however, is the only special feature that is common to *Loxoprosopus* and *Febra*; the globular inflation of the posterior claw of the former places it in quite another subsection of this enormous group. In the genus before us the antennæ are as remarkable for their size as the body of the species before me is for its beauty. The first joint is longer than the breadth of the head, is slightly curved and, towards the apex, thickened; the second is very minute; the third is decidedly longer than the fourth, which in length is equal to the first; the apical joint (see magnified outline of it, Pl. XII. fig. 5 *g*) is curiously angulated near the tip. In the feet the undersides of the joints of the tarsi are thickly clothed with a dense pale pubescence; the claws, at their inner margin near their base, are not simply appendiculated, but have a small, sharp, distinct spur.

The type of the genus is found in the Fiji Islands.

*F. venusta*, n. sp. (Pl. XII. fig. 5.)

*F.* oblongo-ovalis, parallela, punctato-striata, rufa, læte nitida; capite rufo-flavo, inter oculos longitudinaliter foveolato, impunctato; thorace transverso, lateribus lente rotundatis marginatis, impunctato (ad basin ipsam puncta rara dispertiuntur), rufo-flavo; scutello lævi, rufo; elytris parallelis, sat convexis, punctato-striatis, punctis minutis (in striis 3tia et 4ta distantibus, flavis, post medium rufo-flavis vel purpureis); pedibus anterioribus flavis, posticis femoribus purpureo-nigris tibiisque rufo-flavis; antennis rufo-fuscis, ad basin rufo-nigris; corpore subtus rufo.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{5}$.

One of the most lovely of the Halticidæ. Taken by M. Damel in the Fiji Islands. I received it, in his collection of Coleoptera, when he was in England, and subsequently, by the kindness of my friend Dr. Dohrn of Stettin, from some other collection made by the same naturalist, the locality in the latter case also being Fiji Islands.

In the cabinets of Mr. Baly and the Rev. H. Clark.

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XXI.—*Descriptions of new Species of Brazilian* Pompilidæ. By Frederick Smith, Assistant in the Zoological Department of the British Museum.

There is no family in the extensive tribe of Fossorial Hymenoptera that contains species more elegant in their forms, or more gorgeously adorned, than are to be found amongst the Pompilidæ. These insects have an almost universal geographical range; but it is upon the Brazilian species that nature has lavished the most splendid colouring, not unfrequently combined with the brilliant effulgence of gold and silver adornment. Eleven species of the elegant genus *Agenia* are described in the present paper: this section of the Pompilidæ contains those species the tibiæ and tarsi of which are destitute of the spines or serrations which are always found in the other more truly fossorial genera of the family.

The habits of a few species of the genus *Agenia* have been observed, none of them forming burrows of their own, but availing themselves of some hole or ready-formed cavity adapted to the purposes of their economy. The British species, *Agenia punctum*, selects a hole sufficiently large to contain eight or ten mud cells, which the insect constructs, placing them one over the other, apparently without any attempt at regularity of position. In all probability, none of the species of the genus *Agenia* are fossorial in their habits; and consequently they form an aberrant group amongst the Pompilidæ.

The species from Brazil which are here described are selected from the more recent captures of Mr. H. W. Bates. None are of a large size; but several vie in beauty with the largest and most splendid of the tribe, some of which are full $2\frac{1}{2}$ inches in length, whilst others do not exceed 2 lines. The colouring of the wings of these insects is occasionally very beautiful, being blue, purple, violet, green, yellow, or fiery red, with bands or spots of pure white, black, gold, or silver.

The species from Mexico form an important addition to our knowledge of these insects, not more than six or eight having, to my knowledge, been previously described from that country.

## Fam. Pompilidæ.

### Genus Agenia, Schiödte.

#### 1. *Agenia manifestata.*

*A.* nigra, pilis argentatis ornata, alis fusco maculatis et fasciatis.

*Female.* Length 7½ lines. Black; the face below the insertion of the antennæ with a thin silvery pile; the labrum, palpi, and the fourth, fifth, and sixth joints of the flagellum within rufo-testaceous. Thorax: the posterior margin of the prothorax arched; the sides, metathorax, coxæ, and the femora beneath with bright silvery pile; the anterior tibiæ obscurely ferruginous within; the calcaria ferruginous; the metathorax transversely striated towards the apex. The wings flavo-hyaline, with a fuscous fascia crossing the superior pair at the apex of the externo-medial cell; the apex fuscous beyond the stigma, gradually becoming paler to the apical margin; a milk-white spot in the fourth submarginal, a fuscous spot in the second discoidal cell, which unites with the transverse fascia. Abdomen with a changeable silvery pile, which is very bright in some positions; the sides slightly compressed.

*Hab.* Tunantius (River Amazon). In the National Collection.

#### 2. *Agenia nobilitata.*

*A.* nigra, pilis aureo-sericeis variantibus ornata; alis flavis, venis ferrugineis.

*Male.* Length 6 lines. Black; the face, thorax, scutellum, metathorax, and abdomen with a rich changeable golden pile; the coxæ and femora beneath with shining pile of a paler colour. The clypeus widely and deeply emarginate, forming teeth at the angles of the emargination. The wings flavo-hyaline; the nervures pale ferruginous. Abdomen with a short petiole; the golden pile on the abdomen very bright at the sides and on the apical margins of the segments.

The female is from 9 to 10 lines long, is similarly adorned with golden pile, but less brilliant, particularly the abdomen; the sixth and seventh joints of the antennæ pale yellowish white.

*Hab.* Para (Brazil). In F. Smith's Collection.

#### 3. *Agenia sanguinolenta.*

*A.* capite thoraceque antice sanguineis; mesothorace subtus et metathorace nigris; abdomine pedibusque cyaneis; alis hyalinis, fusco nebulosis.

*Female.* Length 5 lines. The head, antennæ, prothorax, and mesothorax above blood-red; the apical joints of the antennæ slightly fuscous; the sides of the thorax, the apex of the metathorax, and the coxæ with shining silvery pile; the anterior tibiæ ferruginous within; the wings hyaline, clouded with fuscous, with a slight fascia at the apex of the externo-medial cell; the legs dark steel-blue; the abdomen bright blue, and with a short petiole at its base.

*Hab.* Villa Nova (River Amazon). In the National Collection.

### 4. *Agenia femorata.*

*A.* nigra, pubescens, facie argentate pubescente, alis hyalinis et iridescentibus, femoribus ferrugineis.

*Male.* Length 4 lines. Black; the face clothed with silvery pubescence; the cheeks have a thin pubescence of the same colour; the mandibles pale testaceous in the middle and ferruginous at the apex. Thorax: the sides and the coxæ with silvery pile and scattered cinereous pubescence; the femora ferruginous, with extreme base and apex black; the calcaria pale testaceous; the wings hyaline and iridescent, the nervures black. Abdomen smooth and shining, and thinly covered with cinereous pile; the apical margins of the segments narrowly testaceous; the basal segment forming a petiole.

*Hab.* Villa Nova (River Amazon). In the National Collection.

### 5. *Agenia ruficeps.*

*A.* capite, prothorace antennarumque basi rubris, thorace pedibusque nigris, abdomine purpureo.

*Female.* Length 4 lines. The head and prothorax blood-red, the scape and base of the flagellum red, the seventh to the tenth joints inclusive white, the apical joint fuscous; the thorax and legs black, with the mesothorax above and the scutellum obscurely blue; the thorax beneath, the coxæ, and metathorax with a thin silky silvery pile. Wings hyaline, with a brown fascia crossing the superior pair at the apex of the externo-medial cell; a cloud also occupies the base of the marginal cell, the second and third submarginal cell, and the apex of the third discoidal cell. Abdomen with a short petiole, of an obscure purple, and very smooth and shining.

*Hab.* Ega (Brazil). In the National Collection.

### 6. *Agenia volatilis.*

*A.* nigra, antennis aurantiaco-flavis; alis hyalinis, pari primo fusco-bifasciato.

*Female.* Length 4 lines. Black, and covered with a changeable silky cinereous pile, that on the coxæ, metathorax, and clypeus having a silvery lustre; the mandibles ferruginous at their apex; the antennæ orange-yellow, the scape with a fuscous spot above. Thorax: the wings hyaline, inclining to milky white at their apex, a brown fascia crosses the superior pair at the apex of the externo-medial cell, and a cloud occupies the second submarginal cell, the base of the marginal and third submarginal, as well as the apex of the third discoidal cell. Abdomen subpetiolate, and very smooth and shining.

*Hab.* Ega (Brazil). In the National Collection.

### 7. *Agenia abdominalis.*

*A.* nigra, abdomine rubro; alis hyalinis, fasciis duabus angustis fuscis ornatis.

*Female.* Length 6 lines. Black; the anterior margin of the clypeus and the tips of the mandibles rufo-piceous; the six apical joints of the antennæ pale ferruginous; the clypeus and face below the antennæ with a thin silvery pile. Thorax: the prothorax beneath, the sides, the metathorax, and scutellum with a changeable glittering silvery pile; the coxæ also pilose. The wings hyaline, the nervures dark towards the base and pale testaceous towards their apex; a narrow brown fascia crosses the superior wings at the apex of the externo-medial cell, and a second paler fascia crosses at the base of the marginal cell. Abdomen subpetiolate, ferruginous, with the petiole black.

*Hab.* Ega (Brazil). In the National Collection.

8. *Agenia polistiformis.*

*A.* luteo-rufa, vertice, mesothorace et metathorace supra nigro-æneis; alis subhyalinis, margine antico primi paris fusco.

*Female.* Length 5½ lines. Reddish clay-colour; the face covered with a dense bright golden pile; the tips of the mandibles rufo-piceous, the flagellum fuscous above, the vertex nigro-æneous. Thorax thinly covered with changeable golden pile; the meso- and metathorax above nigro-æneous; wings subhyaline, with a fuscous stain traversing the anterior margin of the superior pair; the apical joints of the tarsi fuscous. Abdomen subpetiolate.

The *male* is smaller and more slender, but similarly coloured to the female.

*Hab.* Ega (Brazil). In the National Collection.

9. *Agenia annulata.*

*A.* nigra, clypeo, margine prothoracis postica coxisque albis; pedibus abdomineque albo annulatis; alis hyalinis, macula fusca notatis.

*Male.* Length 3¾ lines. Black, with a thin silky cinereous pile; the sides of the thorax silvery; the clypeus, mandibles, palpi, and the scape in front white; tips of the mandibles rufo-piceous. The posterior margin of the prothorax, the coxæ, anterior tibiæ in front, and the basal joints of the anterior tarsi white; the intermediate and posterior tibiæ annulated with white, the intermediate pair have also a white hue behind at their apex; all the calcaria white; wings hyaline, with a fuscous cloud occupying the marginal and the second and third submarginal cells. The abdomen with a white ring at the base of the second segment; the apical segment white.

*Hab.* St. Paul (Brazil). In the National Collection.

10. *Agenia viridis.*

*A.* læte viridis, antennis, tibiis tarsisque fuscis; femoribus ferrugineis.

*Female.* Length 4 lines. Bright green, the clypeus covered with silvery pubescence; the scape with a yellow spot in front; the flagellum fuscous, with the basal joints fulvous beneath. Thorax: the scutellum

golden green, the femora and the anterior tibiæ ferruginous, the coxæ green, the tibiæ and tarsi fuscous; the wings hyaline, the nervures black. The abdomen with a short petiole.

In some examples the colour inclines to blue-green, the abdomen being nearly black.

*Hab.* St. Paul (Brazil). In the National Collection.

### 11. *Agenia aulica.*

*A.* viridis, clypeo, pedibus abdominisque basi pallide ferrugineis; fronte aureo-sericata.

*Female.* Length 4½ lines. Bright green, and covered with a pale downy pile; the clypeus, mandibles, palpi, and scape of the antennæ pale ferruginous; the face covered with golden pile. Thorax: the prothorax and legs pale ferruginous; the thorax in different lights has a golden lustre; the wings hyaline and iridescent, the nervures testaceous; the apical joints of the tarsi fuscous. The abdomen with a short petiole; the basal segment and the apical margins of the following segments pale ferruginous.

*Hab.* St. Paul (Brazil). In the National Collection.

## Genus Pompilus, Fabr.

### 1. *Pompilus imitator.*

*P.* niger, facie, metathorace et coxis pilis argentatis ornatis; alis nigro-fuscis, marginibus apicalibus pallidis; tibiis tarsisque fusco-ferrugineis.

*Female.* Length 5½ lines. Black; the face with a thin silvery pile; the clypeus emarginate, and covered with a changeable silky brown pubescence; the mandibles, at their apex, and the antennæ beneath, ferruginous. Thorax: the posterior margin of the prothorax curved; the metathorax, postscutellum, and coxæ adorned with bright silvery pile; the legs fusco-ferruginous and strongly spinose; the wings dark brown, with the apical and posterior margins pale. Abdomen covered with a fine silky bloom, somewhat plum-coloured.

*Hab.* Ega (River Amazon). In the National Collection.

This insect bears a strong resemblance to some species of wasps belonging to the genus *Chariergus*.

### 2. *Pompilus fragilis.*

*P.* niger, gracilis, pedibus elongatis; alis hyalinis et iridescentibus, anticis fascia pallida ornatis.

*Male.* Length 3¼ lines. Black, and covered with a changeable thin silvery pile very bright on the face, coxæ, and sides of the metathorax in certain positions; the apical half of the mandibles and the palpi pale rufo-testaceous; the wings hyaline, iridescent, and having a faint fuscous fascia crossing the superior pair at the marginal cell; the anterior tibiæ and the basal joints of the tarsi rufo-testaceous; all the

calcaria white and elongate. Abdomen petiolate; the basal margin of the second, and the apical segment entirely white; a narrow fascia of silvery-white pubescence at the basal margin of the third segment; the sixth segment deeply emarginate beneath.

*Hab.* Ega (River Amazon). In the National Collection.

### 3. *Pompilus ichneumoniformis.*

*P.* capite thoraceque nigris; pedibus abdomineque rubris; thorace albo-punctato; antennarum articulis 5–8$^{vum}$ albis.

*Female.* Length 7 lines. Head and thorax black; the clypeus, mandibles, palpi, and orbits of the eyes yellowish white, tips of the mandibles rufo-piceous; the fifth, sixth, seventh, and eighth joints of the flagellum white. Thorax: an interrupted line on the posterior margin of the prothorax, a spot on the mesothorax, scutellum, post-scutellum, and middle of the metathorax white; at the sides of the thorax are four large white maculæ; the coxæ beneath pale testaceous; the legs ferruginous, the tarsi palest; the wings hyaline, the superior pair fuscous at the tip. Abdomen ferruginous.

*Hab.* Villa Nova (Brazil). In the National Collection.

## Genus Priocnemis, Schiödte.

### *Priocnemis opulenta.*

*P.* nigra, argentato læte pubescens; alis anticis nigro-fuscis, apice pallidis.

*Female.* Length 4 lines. Black; the face and cheeks adorned with bright silvery pile; the thorax, excepting the disk of the mesothorax, with brilliant silvery pile; the intermediate and posterior tibiæ strongly serrated outside; the anterior wings dark fuscous, with their apical margins pale, the posterior pair hyaline. The abdomen with silvery pile, which is most dense at the sides and apex.

*Hab.* Ega (River Amazon). In F. Smith's Collection.

## Genus Notocyphus, Smith.

### *Notocyphus vindex.*

*N.* niger, lateribus secundi et tertii segmentorum abdominis albo unimaculatis, segmento apicali albo.

*Female.* Length 7 lines. Black, with a thin changeable cinereous pile; the clypeus white, with a central square black spot; the palpi pale testaceous. Thorax: the wings dark fuscous, the posterior pair hyaline at their base, and slightly fuscous at their apex; the metathorax truncate. Abdomen: the second and third segments with a subovate macula, on each side, of a yellowish-white colour; a similar macula on the apical segment above.

*Hab.* St. Paul (Brazil). In the National Collection.

## Genus Ceropales, Latr.

### 1. *Ceropales agilis.*

*C.* niger, capitis lateribus, prothoracis margine postico maculaque scutelli, postscutelli et angulorum lateralium metathoracis albis; pedibus abdomineque ferrugineis; alis hyalinis.

*Female.* Length 3½ lines. Black; the inner orbits of the eyes, the sides of the clypeus broadly, and the outer orbits of the eyes narrowly, white; a line on the scape in front, and the basal joint of the flagellum in front, white; the head punctured before the ocelli, being smooth and shining behind. Thorax: the posterior margin of the prothorax, the tubercles, a spot on the scutellum, postscutellum, and posterior lateral angles of the metathorax white; the mesothorax with scattered punctures, its anterior margin with a series of very short fine striæ; the sides of the metathorax with silvery pile; the legs ferruginous, the posterior pair elongate, the coxæ black; the apical joints of the intermediate and posterior tarsi fuscous; the wings hyaline, the nervures black. Abdomen ferruginous, with the base fuscous above.

*Hab.* Mexico. In the National Collection.

### 2. *Ceropales luctuosus.*

*C.* niger, labro, clypeo, palpis orbitaque interna oculorum scapoque antice albis; thorace punctato, metathorace argentato-sericato; coxis femoribusque anticis subtus, tarsis anticis et intermediis, tibiarum apicibus albis; pedibus posticis elongatis; abdomine nitido, lateribus albo maculatis.

*Male.* Length 3¾ lines. Jet-black, the abdomen shining; the labrum, clypeus, palpi, face below the insertion of the antennæ, the inner orbits of the eyes, the scape and basal joint of the flagellum in front white. The thorax finely punctured above with large, deep, distant punctures; a minute spot on each side at the extremity of the posterior margin of the prothorax and a spot on the postscutellum white; the scutellum elevated; the metathorax clothed above with a silky silvery pubescence; the coxæ, anterior trochanters, and femora beneath white; the anterior and intermediate tarsi, the anterior tibiæ in front, and the intermediate pair at their base, and apex in front white, the claw-joint of the tarsi black; the posterior legs elongate; the wings hyaline, their extreme apex fuscous, the nervures black. The abdomen with a row of oblong spots at the sides, and a double row beneath, white.

*Hab.* Ega (Brazil). In the National Collection.

### 3. *Ceropales crassicornis.*

*C.* ferrugineus, capite nigro; labro, clypeo scapoque antice albis; abdominis apice, tibiis posticis, tarsis femorumque apice nigris; alis hyalinis, fusco maculatis.

*Male.* Length 4 lines. Ferruginous; the head black; the clypeus,

labrum, mandibles, palpi, and scape in front yellowish white, slightly reddish above the insertion of the antennæ; the latter fuscous above, darkest towards their apex, and incrassate in the middle. The coxæ beneath paler than the thorax; the posterior legs elongate, their tibiæ, tarsi, and base of the femora black; the wings hyaline, the nervures fusco-ferruginous, a fuscous cloud occupies the third submarginal cell and apical half of the marginal one. Abdomen: the apical margin of the second segment in the middle, the third and three following segments dark fuscous, nearly black; the apical segment white.

*Hab.* Ega (Brazil). In the National Collection.

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XXII.—*Additions to the* Longicornia *of South Africa, including a few Species from Old Calabar and Madagascar.* By Francis P. Pascoe, F.L.S., &c.

[Plate XIII.]

The most interesting additions to the catalogue of South African Longicornia described in the following pages belong to groups which have not yet been recognized as belonging to the fauna of that region. One of these (*Hyllisia*) is nearly allied to the *Agapanthiæ* of the north; another (*Otteissa*) is an exponent of the restricted subfamily Lepturinæ, but having very little connexion with the Madagascar *Mastododeræ*. Of the third (*Psebium*) I can only come to the conclusion that it is related to certain anomalous genera hitherto entirely confined to Australia.

The species described from Old Calabar include two very interesting *Dorcadion*-forms, while from Madagascar we have received from Mr. Plant (from whom so much was expected) but one novelty, constituting a curious genus belonging to the *Apomecyninæ*.

Nonyma.

*Caput* antice subtransversum, tuberibus antenniferis validis, divergentibus. *Oculi* mediocres, late emarginati. *Antennæ* corpore longiores, basi distantes, scapo modice elongato, cylindrico, articulo tertio æquali, cæteris brevioribus. *Prothorax* oblongus, regularis, lateraliter dentatus. *Elytra* regularia, angustata, ad latera leviter rotundata, humeris haud prominentibus. *Pedes* mediocres; *femora* haud clavata; *tibiæ* intermediæ emarginatæ; *tarsorum* articulo basali modice elongato. *Pro-* et *mesosterna* simplicia.

An obscure species both in form and colour is the exponent of this genus. In general appearance it has considerable resemblance to *Æschopalora*, lately described by me in the 'Longicornia Malayana.'

differing, however, in the diverging antennary tubers, and consequently the remoteness of the antennæ at their insertion.

*Nonyma egregia.*

*N.* fusca, pube grisea tenuiter vestita.
*Hab.* Natal.

Brown, with a thin greyish pubescence; head very convex between the tubers; prothorax with large scattered shallow punctures; the lateral tooth small, rather behind the middle; scutellum rounded behind, covered with a very dense whitish pile; elytra punctate-striate, the interstices rather more elevated posteriorly, the third especially, uniting with the fifth, being the most prominent, the apex of each elytron rounded; body beneath and legs chestnut-brown, with a very sparse grey pile; antennæ not quite half as long again as the body. Length $3\frac{1}{2}$ lines.

Biasmia.

*Caput* antice latum, subtransversum. *Oculi* parvi, modice emarginati. *Antennæ* breves, 11-articulatæ, setosæ, basi distantes, tuberibus antenniferis obsoletis, scapo ovato, articulo secundo elongato, tertio longiore, quarto breviore, cæteris brevibus et subæqualibus, quinto et sexto plumosis. *Palpi* acuti. *Prothorax* convexus, arcuatus, postice angustior, lateribus abrupte dentatus. *Elytra* regularia, brevia, apice integra. *Pedes* breves; *femora* clavata; *tarsi* lati, articulo ultimo brevi. *Pro-* et *meso-sterna* simplicia, remota. *Abdominis* segmenta gradatim breviora. *Corpus* modice robustum, setosum.

In the first part of my 'Longicornia Malayana,' recently published, I have pointed out the tendency of certain genera of the "Exocentrinæ" to a peculiar arching of the prothorax, forming with the head a complete curve. I may here cite *Cyrtinus* of Leconte as one of the best-known amongst them. This arching varies in extent; in this new genus it is very decided, although less so than in one or two others. None of these genera have the antennæ plumed; and in this respect *Biasmia* may be distinguished from them; the tuft or plume is not, however, uncommon in this subfamily. Moreover the elytra of *Biasmia* are perfectly regular, have neither spines nor any tendency to a concavity in their centre together with the corresponding convexity behind, but, on the contrary, are rather depressed than otherwise. The single species of the genus is a somewhat robust form for this group.

*Biasmia guttata.*

*B.* castanea, nitida; elytris maculis pilosis albis adspersis.
*Hab.* Natal.

Shining chestnut-brown, darker at the sides, with black sparse setæ;

head thinly pubescent; eyes and mandibles black; prothorax remotely punctured, lateral spine very small, placed behind the middle; scutellum rounded posteriorly; elytra with large, distant punctures, and a few small scattered tufts of white hairs; body beneath dark chestnut; legs reddish chestnut, the tarsi paler; antennæ as long as the body, the third, fourth, and fifth joints with white hairs at the base, the fifth and sixth joints surrounded with closely set black setæ, forming an elongated tuft. Length $3\frac{1}{4}$ lines.

Isse.

*Caput* antice subtransversum, tuberibus antenniferis validis. *Oculi* mediocres. *Antennæ* corpore longiores, setosæ, basi distantes, scapo modice elongato, subcylindrico, articulis tertio quartoque æqualibus, cæteris gradatim decrescentibus. *Prothorax* æqualis, lateraliter rotundatus, medio vix dentatus. *Elytra* prothorace multo latiora, convexa, basi cristata, disco inæquali. *Pedes* mediocres; *femora* clavata; *tibiæ* subelongatæ; *tarsi* breves, lati. *Corpus* setosum.

A member of the subfamily "Exocentrinæ," but not very nearly allied to any genus known to me. Like most of the genera of its group, the anterior and intermediate coxæ are large and prominent, the pro- and meso-sterna simple, and the second joint of the antennæ unusually long for a Longicorn.

*Isse punctata.*

*I.* picea, pube grisea vestita; elytris singulis postice piloso-cristatis.

*Hab.* Natal.

Pitchy, covered with a coarse grey pubescence; head concave between the tubers, and without an impressed line; prothorax nearly equal in length and breadth, the sides rounded, but forming at the middle a short tooth-like angle, the disk with a few large punctures; scutellum triangular; elytra coarsely punctured, as if spotted, a short but prominent crest at the base, and another posteriorly, the latter covered with a dense bunch of erect hairs; body beneath pitchy brown, with a scant grey pubescence; legs grey, varied with brown; antennæ about a third longer than the body, pale greyish, the apices of the joints, except the first and second, dark brown. Length 3–4 lines.

*Hecyra frontalis.*

*H.* brevis, rugosa, fusca, sparse griseo pubescens; fronte bituberculata; prothoracis lateribus dense albido tomentosis; elytris basi duplicato-cristatis.

*Hab.* Damara-land.

Short and broad, rugose, dark brown, with a thin greyish pubescence; head with two prominent tubercles on the crown; prothorax transverse, with two small prominences on its anterior margin, the posterior lateral tuber elongate-triangular, the sides, including the tubers, covered with

a very dense whitish tomentum; scutellum bluntly triangular; elytra very irregular, elevated at the base, and crested with a short double tuft of dark brown hairs, behind the middle an obliquely raised waved line, the sides with deeply impressed punctures; legs varied with greyish-brown hairs; sterna and lower surface of the femora clothed with long silvery hairs; abdomen with rusty grey hairs, a row of polished black spots down the middle. Length 7 lines.

*Hecyra*, Thoms., is perhaps better known under its catalogue-name of *Omopsides*.

ŒAX.

*Caput* antice quadratum, tuberibus antenniferis divergentibus. *Oculi* parvi, reniformes. *Antennæ* corpore parum longiores, basi distantes, scapo cylindrico, apice cicatricoso, articulis tertio quartoque æqualibus, cæteris gradatim decrescentibus. *Prothorax* quadratus, disco tuberculato, postice constrictus, ad latera obtuse angulatus. *Elytra* subtrigonata, irregularia, basi cristata. *Pedes* mediocres; *femora* clavata; *tibiæ* anticæ rectæ; *tarsi* breves, articulo basali intermediorum et posticorum elongato-triangulari. *Pro-* et *meso-sterna* simplicia.

This genus is founded on the *Acmocera triangularis*, Wh. It is, however, more nearly allied to *Lasiopezus* and *Ancylonotus* among the Lamiinæ, but much smaller, not being above six lines in length, pure snowy white, the prothorax and base of the elytra clouded with pale brown, a dark brown or black patch at the sides, the antennæ and legs ringed with black and white. The type is

*Œax triangularis*. (Pl. XIII. fig. 5.)

*Acmocera triangularis*, White, Proc. Zool. Soc. 1858, p. 400.

IDACTUS.

*Caput* antice quadratum, tuberibus antenniferis divergentibus. *Oculi* parvi, reniformes. *Antennæ* corpore vix longiores, scapo obconico, apice vix cicatricoso, articulo tertio scapo parum longiore, cæteris brevioribus et gradatim decrescentibus, articulo ultimo brevi, haud hamato. *Prothorax* quadratus, antice et postice constrictus, disco tuberculatus, ad latera fortiter angulatus vel dentatus. *Elytra* irregularia, basi cristata. *Pedes* mediocres; *femora* incrassata; *tibiæ* anticæ breves, rectæ; *tarsi* postici tibiis æquales. *Pro-* et *meso-sterna* simplicia.

In the British Museum an individual of the species on which this genus is founded stands under, or *over*, the manuscript name of *Acmocera tridens*, Chevr. Its characters, however, particularly the absence of the terminal hook of the antennæ, and the shortness of the prothorax, the mandibles when in repose lying in close proximity to the anterior coxæ, and not, owing to its greater length, being

distant from them as in *Acmocera*, point rather to the Lamiine subfamily, and particularly to the neighbourhood of the last genus. I have retained M. Chevrolat's specific name, which seems to have been suggested by the three teeth of the prothorax—the central and two lateral.

*Idactus tridens.*

*I.* griseo-brunneus, colore dilutiore varius ; antennis maculatis, scapo fusco. *Hab.* Natal.

Covered with a greyish-brown pubescence, varied, principally on the middle of the elytra, with paler; head with an impressed line extending to the epistome; prothorax with a strong triangular tooth in the centre of the disk, two small tubercles in front of it, the lateral tooth occupying the middle third or rather more; scutellum transverse, rounded behind; elytra irregular, slightly narrowing from the shoulders, each with the apex rounded, and having at the base an elevated compressed crest crowned with close-set brown hairs, and another posteriorly, of the same kind, but smaller; body beneath and legs with a grey pile; antennæ brown, ringed at the bases of the joints with paler, the scape dark brown. Length 5 lines.

Emphreus.

*Caput* antice quadratum, tuberibus antenniferis basi approximatis. *Oculi* parvi, late emarginati. *Antennæ* breves; scapo foveato, claviformi, articulo tertio quarto breviore, cæteris multo brevioribus. *Prothorax* transversus, irregularis, postice constrictus, ad latera spina media obtusa. *Elytra* subtrigonata, irregularia, basi cristata. *Pedes* validi, æquales; *femora* sublinearia; *tibiæ* anticæ rectæ, intermediæ emarginatæ; *tarsorum* omnium articulo basali breviter triangulari. *Pro-* et *meso-sterna* simplicia.

Mr. White referred the only known species of this genus to *Acmocera* (Dej.). It belongs, however, to something very different to the one described by M. James Thomson under that name, and is in fact closely related to *Phryneta*, from which it is distinguished by its simple sterna and other characters. It is from Natal. The type is

*Emphreus ferruginosus.*

*Acmocera ferruginosa*, White, Proc. Zool. Soc. 1858, pl. 3. fig. 8.

Chreostes.

Characteres ut in *Phryneta*, sed oculi parvi, laterales.

*Phryneta* has, with few exceptions, the largest eyes to be found among the Lamiidæ; but in this genus they are small, even in comparison with the ordinary forms of the family, and are entirely con-

fined to the sides, not advancing and almost approximating in front. *Phryneta cinereola*, White, is another species having also small lateral eyes, but with short narrow tarsi—that is, so far as the three basal joints are concerned, the claw-joint being in proportion unusually large*. It is also a weaker form, although, such is the instability of the characters of the Longicornia, that it is excelled in this respect by *Phryneta cæca*, Chevr., and another species described below (*P. suturalis*), which do not seem to offer any valid generic characters beyond this to warrant their separation.

*Chreostes ephippiatus.*

*C.* obscure fuscus, fulvo variegatus; elytris mediis plaga magna cruciformi, et ad latera maculis magnis duabus, fulvis; corpore infra omnino fulvo. *Hab.* Natal.

Covered with a short, close, dull brown pubescence, varied with greyish yellow; head impunctate, entirely covered, as well as the whole under surface and legs, with a greyish-yellow pubescence; eyes black; mandibles and lip dark brown; prothorax dark brown in the centre, yellowish at the sides, two tubercles on the disk anteriorly, and between them an elevated line terminating behind in two smaller tubercles; the lateral spines very stout and obtuse; scutellum rounded at the sides; elytra irregularly punctured, the punctures everywhere yellowish, a large ×-shaped yellowish patch in the middle, and on each side posteriorly two irregular patches of the same colour; rest of the elytra brown, of varying shades; antennæ shorter than the body, finely pubescent, yellowish. Length 15 lines.

Hagesata.

*Caput* antice subtransversum, convexum, supra episternum transverse sulcatum, tuberibus antenniferis divergentibus. *Oculi* magni, fronte subapproximati. *Antennæ* corpore longiores, basi distantes, scapo apicem versus incrassato, cicatricoso, articulo tertio longiore, cæteris (ultimo excepto) brevioribus, gradatim decrescentibus. *Prothorax* transversus, postice sulcatus, lateraliter spinosus. *Elytra* oblonga, parallela, humeris subprominentibus. *Pedes* mediocres; *femora* modice incrassata; *tarsi* antici breves, postici longiores. *Prosternum* muticum; *mesosternum* dentatum.

This genus differs in no respect essentially from *Anoplosthaeta*, except in the transverse sulcation above the epistome and its toothed prosternum. It has, however, somewhat larger eyes, more oblong elytra, and longer posterior tarsi; but the beautiful coloration of the latter gives it quite a different appearance. The specimen described below was taken at Sierra Leone by the late Mr. James Foxcroft (to

* In my collection, I have called this form *Praomœra*.

whose memory I dedicate it), well known for many years to British collectors, and whose love for entomology took him to that deadly region, where he survived but a few months.

*Hagesata Foxcroftii.*

*H.* fusca, pube subtili brunnea tecta; elytris singulis macula nigra ante medium.

*Hab.* Sierra Leone.

Dark brown, covered with a short, thin, yellowish-brown pile; head with an impressed line on the vertex; between the antennary tubers a raised line continued to the transverse groove above the epistome; prothorax slightly irregular, the lateral spine short and thick; scutellum small, rounded at the sides; elytra finely punctured, a few black granules at the shoulders, the apex entire, a small round black spot a little before the middle on each; body beneath and legs with a thin yellowish pile; antennæ about a quarter longer than the body. Length 14 lines.

Imalmus.

*Caput* magnum, antice concavum, subtransversum, inter oculos linea transversa, vertice elevato, tuberibus antenniferis divergentibus, basi distantibus. *Oculi* parvi, late emarginati. *Mandibulæ* robustæ. *Antennæ* mediocres, scapo attenuato, apice cicatricoso, articulo tertio longiore, cæteris brevioribus et decrescentibus. *Prothorax* transversus, postice sulcatus, ad latera spinosus. *Elytra* ampla, subparallela, apice rotundata, humeris productis. *Pedes* subbreves; *femora* incrassata; *tarsi* breves, articulis tribus basalibus transversis. *Prosternum* muticum; *mesosternum* tuberculatum.

This genus differs from the last in its small eyes not approximating in front, large mandibles, shorter antennæ, and massy figure, although in these respects the second species is less strongly marked, and has proportionally slenderer antennæ.

*Imalmus capito.*

*I.* castaneus, pube subtili grisea pallide brunnea irrorata; antennis robustis.

*Hab.* Old Calabar.

Reddish chestnut, covered with a short thin greyish pile spotted with ferruginous brown; head thinly pubescent; mandibles dark brown; epistome and palpi chestnut; prothorax nearly twice as broad as long, the lateral spine prominent, rather behind the middle; elytra short, the shoulders granulated, the brownish spots concentrated on the sides posteriorly; body beneath and legs pitchy, covered with a short ferruginous pile; antennæ about as long as the body. Length 12 lines.

*Imalmus fatidicus.*

*I.* fuscus, pube subtili grisea vestitus; antennis tenuioribus.

*Hab.* Old Calabar.

Dark brown, slightly shining, covered with a very short, thin, greyish pile; head with a line of greyish hairs on each side of the face; mandibles with the lower half and palpi glossy black; prothorax considerably broader than long, the lateral tooth short; scutellum rounded behind; elytra coarsely and irregularly punctured, the punctures smaller towards the suture, and their edges mostly free from pubescence, so as to give the elytra, although obscurely, a somewhat marbled appearance; body beneath and legs glossy brown, with a greyish-ferruginous pile; antennæ rather longer than the body, more attenuated than in the first species. Length 9 lines.

*Phryneta suturalis.*

*P.* subangusta, nigra, maculis albis pubescentibus ornata, una præcipue supra suturam sita; corpore infra albo, nigro maculato.

*Hab.* Old Calabar.

Rather narrow for this genus, but not more so than *P. cæca*, Chev.; deep black, glabrous, with dense spots or patches of white pile; these occur on the vertex, behind the eye, a stripe on each side of the prothorax and several small spots on the sides of the elytra, but principally in a long patch which extends from the scutellum to near the apex; body beneath white, with various spots of black on the breast and abdomen, each of the segments of the latter, except the last, has six; legs and antennæ (the fifth to the seventh joints principally) with indistinct patches of white. Length 9 lines.

ORIÆTHUS.

*Caput* latum, antice subtransversum, tuberibus antenniferis validis, basi approximatis. *Oculi* parvi, late et profunde emarginati. *Antennæ* maris longissimæ, fœminæ corpore haud duplo longiores, sublineares, scapo incrassato, vix elongato, apice cicatricoso, articulo tertio longiore, cæteris brevioribus, ultimo parum crassiore. *Prothorax* quadratus, lateraliter spinosus. *Elytra* brevia, subovata, irregularia, spinoso-cristata, postice declivia, apice integra, humeris (spinis exceptis) nullis. *Pedes* mediocres. *Pro-* et *meso-sterna* simplicia.

On the whole I think this genus approaches more nearly in figure and outline to *Phrissoma umbrinum*, White, than to any other *Dorcadion*-form known to me. The great length of the antennæ in both sexes, their linear outline, and the general character of the prothorax and elytra will be quite sufficient to distinguish it.

*Oriæthus longicornis.* (Pl. XIII. fig. 1.)

*O.* niger, fuscescente pubescens; elytris basi et post medium fuscis, parte intermedia griseis.

*Hab.* Natal.

Black, covered with a light brownish pile, the middle of the elytra

and shoulders greyish, the base and band behind the middle dark brown; head and prothorax with a close, rough, tawny-brown pile, irregularly punctured, the latter with a small glabrous oblong mark on its disk; elytra scarcely twice as long as the head and prothorax together, somewhat ovate, gradually broader from the shoulder to beyond the middle, when they suddenly slope from all sides to the apex; on the disk of each elytron two rows of large spinous tubercles, and at the side two lesser rows, the apex slightly divaricate; body beneath, legs, and scape with a close umber-brown pile, with scattered short white hairs; antennæ brownish, the bases of the joints paler. Length 6 lines.

Opsies.

*Caput* antice oblongo-quadratum, convexum, tuberibus antenniferis basi approximatis. *Oculi* parvi, reniformes. *Labrum* brevissimum. *Antennæ* corpori vix æquales, subattenuatæ, scapo elongato-subcylindrico, squamulis vestito, articulo tertio multo breviore, quarto tertio fere æquali, cæteris brevioribus et subæqualibus. *Prothorax* capite latior, oblongus, lateribus rotundatus, dente obtuso post medium sito, disco inæquali. *Elytra* ovata, tuberculata, humeris nullis. *Prosternum* angustum, depressum; *mesosternum* declive. *Acetabula* antica, anguste angulata. *Abdomen* breviter triangulare. *Pedes* subelongati; *femora* vix clavata; *tibiæ* elongatæ; *tarsorum* articulo ultimo mediocri.

M. Chevrolat has published a near ally of this genus under the name of *Parmena bufo*, but which differs in its slender antennæ with a short subpyriform scape, and the third and fourth joints so long as to equal the seven following together*. The species described below has a close superficial resemblance to it, but may be at once known from all the other genera of the *Dorcadionina*† by its scape, which nearly equals in length the third and fourth joints together.

* This genus may be named and characterized as follows:—

Apomempsis.

*Caput* antice quadratum, tuberibus antenniferis approximatis. *Oculi* fere divisi. *Antennæ* corpore breviores, scapo breviusculo, subpyriformi, articulis tertio quartoque longissimis, cæteris brevibus et subæqualibus. *Palporum* articulo ultimo præcedente non longiore. *Prothorax* rugosus, oblongus, antice angustior, lateribus dentatus. *Elytra* tuberculata, ovata, medio elevata, postice declivia, angulis anticis obsoletis. *Pro-* et *meso-sterna* simplicia. *Acetabula* antica angulata. *Tarsi* omnes æquales.

Type, *Parmena bufo*, Chevrolat.

† Another genus of this group has been lately characterized by M. James Thomson (Essai, &c. p. 23) under the name of *Leprosoma*, which I propose to change to *Lepromoris*, the former name having been previously used for a genus of Hemiptera. The type is *L. gibba*, Brullé (*Lamia*).

*Opsies capra.* (Pl. XIII. fig. 3.)

*O.* obscure fuscus, punctatus.

*Hab.* Natal.

Dark brown, everywhere covered with minute scales, the upper surface with large remote punctures; head not broader than the prothorax at its insertion; mandibles pitchy black; prothorax oblong-ovate, with two spreading tubercles on the disk; scutellum transverse, rounded posteriorly; elytra ovate, not much longer than the prothorax and head together, the apex slightly produced and rounded, with a sutural row of three tubercles and an outer of five on each elytron; legs, especially the tibiæ, elongate, the posterior femora extending to nearly the apex of the elytra; body beneath dull brown; the three intermediate abdominal segments very short; antennæ scarcely so long as the body. Length 6 lines.

*Phantasis heros.* (Pl. XIII. fig. 7.)

*P.* nigra, nitida; prothorace medio abrupte tuberculato, tuberculo bilobato cum lobis postice divaricatis; elytris obovatis; antennis tibiisque griseo pubescentibus.

*Hab.* Natal.

Black, glabrous, shining; head coarsely punctured, the antennary tubers not toothed at the base in front; palpi ovato-triangular, obtuse; prothorax strongly spined on the side, very irregular, with a large elevated tubercle rising abruptly from the middle of the disk, the tubercle rounded anteriorly, spreading out in two divaricate lobes behind; scutellum small, slightly emarginate posteriorly; elytra convex, obovate, broader behind, with three rows of large tubercles, and a sutural row of smaller tubercles on each; abdomen beneath black and shining, with a fringe of buffish hairs at the sides of each segment; pectus, coxæ, base of the femora, and tibiæ covered with a greyish pile, the latter with a yellowish tinge; antennæ shorter than the body, with a dull greyish pubescence. Length 13 lines.

Nearly as large as *P. gigantea*, Guér., but more convex, and the elytra without the smaller interserial tubercles, in which respect and in its glossy glabrous derm it differs from all the other described species (four) known to me. *Phantasis*, Thom., differs from *Phrissoma*, Lap., principally in the *total* absence of humeral angles.

ELITHIOTES.

*Caput* antice transversum, convexum, tuberibus antenniferis nullis. *Oculi* grosse granulati, mediocres, anguste emarginati. *Antennæ* corpore breviores, pilosi, basi distantes, scapo modice elongato, subcylindrico, articulo tertio et sequentibus gradatim brevioribus. *Prothorax* transversus, capite non latior, lateribus fere parallelis. *Elytra* elongata, apice integra. *Pedes* breves; *tibiæ* intermediæ fere integræ; *tarsorum* articulo basali duobus sequentibus conjunctis æquali. *Prosternum*

depressum. *Mesosternum* antice declivum. *Corpus* subcylindricum, pilosum.

In colour and general appearance this genus resembles *Phaula*, Thom.; but the form of the head, the antennæ, and the presence of setaceous hairs on every part except the eyes, will at once amply distinguish it.

*Elithiotes hirsuta.*

*E.* fulva, pube pallidiore tecta.

*Hab.* Natal.

Derm fulvous, shining, rather closely covered with a longish pubescence much paler than the derm, or approaching to greyish, with long, semierect hairs dispersed on every part, but more crowded on the antennæ; head and prothorax with numerous very coarse punctures; elytra with the punctures more scattered and very shallow; posterior legs not nearly reaching to the end of the elytra; antennæ above three-quarters as long as the body. Length 6 lines.

Hyagnis.

*Caput* antice subtransversum, infra verticem concavum, tuberibus antenniferis elongatis, suberectis. *Oculi* parvi. *Antennæ* attenuatæ, corpore vix longiores, scapo brevi, cylindrico, articulo tertio duplo longiore, cæteris brevioribus, descrescentibus. *Prothorax* oblongus, cylindricus. *Elytra* elongata, apice integra. *Pedes* breves; *tibiæ* intermediæ leviter emarginatæ; *tarsorum* articulo basali duobus sequentibus conjunctis breviore. *Pro-* et *meso-sterna* simplicia. *Corpus* angustum, haud pilosum.

The unusual length of the antennary tubers is the most remarkable point connected with this genus, which, in habit, bears some resemblance to certain narrow species of *Rhopica*. Like the former (*Elithiotes*), it belongs to the Apomecyninæ.

*Hyagnis fistularius.*

*H.* griseo-pubescens; elytris singulis post medium plaga magna pallide grisea.

*Hab.* Natal.

Derm pitchy, covered with a very short, greyish pubescence; head with a thick, rough, yellowish-grey pubescence, very concave between the tubers; eyes small and widely apart; prothorax coarsely punctured, the widest part a little behind the anterior border; scutellum rounded posteriorly; elytra irregularly and coarsely punctured, on each elytron three or four elevated lines, one only well defined, and connected with the remainder before reaching the apex, behind the middle a condensed patch of a paler pubescence; body beneath and legs greyish, pubescent; posterior tarsi longer than their tibiæ. Length 4 lines.

ATYBE.

*Caput* latum, vertice elevato, fronte non impressa, subquadrata. *Oculi* parvi, emarginati. *Antennæ* remotæ, setaceæ, subfimbriatæ, breves, articulo basali ovato, tertio elongato, quarto curvato breviore, cæteris brevibus. *Prothorax* brevis, subquadratus, lateribus muticis. *Elytra* parallela, prothorace latiora, basi cristata. *Pedes* breves; *tarsi* omnes æquales (*tibiæ* haud breviores), articulo ultimo non elongato. *Pro-* et *meso-sterna* dentata.

I am inclined to consider this genus as intermediate between *Cloniocerus* and *Ecthœa*, although by no means very nearly allied to either. With the former it has a *primâ facie* resemblance in outline and vesture; with the latter it agrees in the elevated vertex, and in the setaceous antennæ widely separated at the base. According to my views, they are all referable to the *Apomecyninæ*, a subfamily of *Lamiidæ*, principally characterized by their short legs and generally short and subulate antennæ, although in the latter respect *Cloniocerus* is a remarkable exception. The species described below is, I believe, unique, and was lately sent to this country by Mr. Plant, to whom it is dedicated. It is now in my collection.

*Atybe Plantii.* (Pl. XIII. fig. 6.)

*A.* fusco pubescens; elytris sparse spinulosis, basi, apice et plaga laterali exceptis, albidis.

*Hab.* Madagascar.

Dark brown, with a short, close, brownish pubescence, except the greater part of the elytra, which are whitish, the base and apex only being brown, with a paler patch of the same colour at the side; head with two small tubers on the vertex; antennæ much shorter than the body, dark brown, scarcely fimbriated beneath; prothorax about equal in length and breadth, rather narrower posteriorly, the sides slightly rounded, a pair of small pointed spines directed forwards on each side of the disk, and another on the anterior margin immediately in a line with each pair; elytra rounded at the apex, a short row of spines forming a crest at the base of each, and several small spines scattered at intervals over the surface, some of which have a little tuft of hair at the apex; legs dark brown, the proximal half of the tibiæ white; body beneath dark brown, shining, with scattered hairs; anterior acetabula moderately angulated externally. Length 7 lines.

CORMIA.

*Caput* antice subquadratum, convexum, tuberibus antenniferis validis, basi approximatis. *Oculi* parvi, distantes. *Antennæ* corpore breviores, haud pilosæ, scapo cylindrico, articulo tertio quam scapo et quarto multo longiore, cæteris decrescentibus. *Prothorax* transversus, æquatus,

lateraliter rotundatus et inermis. *Elytra* brevia, convexa, prothorace latiora, irregularia, apice declivia. *Pedes* breves; *tarsi* omnes subæquales. *Prosternum* angustum, depressum. *Mesosternum* simplex, postice haud lobatum. *Abdomen* breviusculum.

Allied to *Albana*, Muls., although a much more bulky form and distinguished by its shorter scape, the long third joint of the antennæ, and irregular elytra. It appears to be not uncommon in Natal.

*Cormia ingrata.*

*C.* sordide fusca; elytris quadricristatis.

*Hab.* Natal.

Dull brown, with a short reddish-grey pile, and rather coarsely punctured; head with a strongly marked line between the tubers; prothorax rather wider than the head; elytra considerably broader than the prothorax, each with two long narrow elevated crests, the first basal, the second commencing at the middle and rather outside the line of the first, towards the side a slightly raised line, the apex slightly truncate; body beneath and legs chestnut-brown, with a grey pile. Length 2–3½ lines.

*Sophronica carbonaria.*

*S.* fusca, sparse nigro pilosa; prothorace transverso, concolori; antennis incrassatis; oculis vertice distantibus.

*Hab.* Cape.

Dark brown, slightly shining, with scattered, stiff, rather shortish, black hairs; head broad, very convex in front, and coarsely punctured; eyes widely apart, especially on the vertex; prothorax transverse, rounded at the side, coarsely punctured; elytra oblong, irregularly and coarsely punctured; body beneath dark chestnut, shining; antennæ thick, sparsely pilose. Length 4 lines.

Probably the *Sophronica carbonaria* of Dejean. The genus *Dasyo*, published by me in the 'Transactions of the Entomological Society' (2nd ser. iv. p. 253), is perhaps sufficiently distinct, although at one time I thought that it was undoubtedly identical with the *Sophronica* of Blanchard (Hist. des Ins. ii. p. 160) and of Dejean's Catalogue. *Dasyo* (*D. lineata*) has, however, larger eyes, nearly approximate on the vertex, a narrower and less convex head, and a transverse prothorax, with certain differences in the comparative length of the joints of the antennæ which are probably of less value; for in this respect, and also in their more attenuated forms, *Dasyo improba* differs from both species.

*Alphitopola ficivora.*

*A.* angusta, piceo-fusca, maculis albis pubescentibus irregularibus ornata; antennis pedibusque ferrugineis, illis corpore triente longioribus.

*Hab.* Natal.

Narrow, scarcely depressed, pitchy brown, with an interrupted white pubescence, forming irregular but very distinct and almost confluent patches on the prothorax and elytra; head scarcely narrower than the prothorax, the latter nearly quadrate; scutellum transverse; elytra parallel, coarsely and irregularly punctured; body beneath with a whitish pile; antennæ and legs ferruginous, with an extremely delicate pubescence, the former about a third longer than the body. Length 4 lines.

The elytra are more parallel at the sides and have a very much coarser punctuation than *A. maculosa*, the antennæ stouter and scarcely half as long as in that species, and the spots are more confluent and irregular. It is said to feed on the fig.

*Alphitopola intricata.*

*A.* latior, depressa, fusca, maculis ochraceis pubescentibus irregularibus conjunctis ornata; antennis pedibusque ferrugineis, illis corpore triente longioribus.

*Hab.* Natal.

Much broader than the last, and depressed, dark brown, slightly shining, with an interrupted ochraceous pubescence, forming, especially on the elytra, distinct patches of very irregular figure, the darker colour having a reticulated appearance; head rather narrower than the prothorax, which is slightly transverse; elytra rather incurved behind the shoulders, the punctures of moderate size and somewhat distant; body beneath with a fine greyish pile; antennæ and legs ferruginous, with a very delicate greyish pubescence, claw-joint black. Length 5 lines.

*Eunidia fulva.*

*E.* supra pube fulva omnino tecta; corpore infra, antennis pedibusque fuscis, sparse griseo pubescentibus.

*Hab.* Natal.

Upper parts entirely covered with a dense fulvous pile; body beneath, antennæ, and legs dark brown, with a thin greyish pubescence; prothorax narrower than the head, above equal in breadth and length; scutellum small, triangular; elytra irregularly punctured, the sides nearly parallel; antennæ nearly half as long again as the body in the male, paler towards the apex in some specimens. Length 3 lines.

*Eunidia timida.*

*E.* supra pube grisea tecta; corpore infra et antennarum articulis tribus basalibus fuscis, cæteris pedibusque fulvo-testaceis.

*Hab.* Natal.

Fulvo-testaceous, covered with a close greyish pile; body below, three basal joints of the antennæ, and prothorax smoky brown, rest of the antennæ and legs fulvo-testaceous, with a very thin greyish pubescence; prothorax about equal in length and breadth, rather narrower behind; elytra irregularly punctured; antennæ more than half as long again as the body. Length $2\frac{1}{2}$ lines.

SYESSITA.

*Caput* antice quadratum, tuberibus antenniferis validis, basi approximatis. *Oculi* elongati, late emarginati, lobo superiore parvo. *Antennæ* subincrassatæ, corpore paulo longiores, scapo modice elongato, fusiformi, articulo secundo tertio obsolete conjuncto, apice producto, quarto scapo æquali, cæteris brevibus, gradatim descrescentibus. *Prothorax* parvus, quadratus, lateraliter subdentatus, capite angustior. *Elytra* oblonga, parallela, subdepressa, lineis longitudinalibus elevatis. *Pedes* breves; *femora* modice incrassata; *tibiæ* anticæ rectæ, intermediæ haud emarginatæ. *Pro-* et *meso-sterna* simplicia. *Abdominis* segmentum ultimum subelongatum.

The characters of this genus are very nearly those of *Eunidia*; only the antennæ are thicker throughout, the body more depressed, the prothorax slightly toothed at the side, and the elytra have raised longitudinal lines. It contains three homogeneous yet very distinct species.

*Syessita vestigialis.*

*S.* fulva, pube sericea tecta; elytris obsolete quadriplagiatis.
*Hab.* Natal.

Pubescence silky, fulvous yellow; the elytra with four indistinct patches, especially the two anterior; head with a deeply impressed median line, crossed by a shorter one between the antennæ; eye nearly straight behind, a black spot behind it; prothorax with a darkish stripe on each side; scutellum small, black; elytra with three raised lines on each; body beneath and legs brownish yellow, with a thin grey pile; antennæ with the three basal joints dark brown, the remainder brownish. Length 5 lines.

*Syessita divisa.*

*S.* fulvo pubescens; elytris nigris, tertio basali excepto.
*Hab.* Natal.

Pubescence fulvous yellow, coarse, and not silky; elytra black, the basal third excepted; head and eyes as in the last; prothorax proportionally narrower; scutellum small, black; elytra each with three raised lines, the black approaching the scutellum obliquely; body beneath and legs brown, with a greyish pile; antennæ nearly black, the base of the fourth joint pale greyish. Length 4 lines.

*Syessità duplicata.*

*S.* angustior, fulvo pubescente; antennis pedibusque nigris.

*Hab.* Natal.

Narrower than the two preceding species; pubescence fulvous, not silky; head with a slight median line, the transverse one between the antennæ also very slight; eye narrow, a little incurved behind, a black spot behind the eye; prothorax very narrow, a dark stripe on each side; scutellum small, black; elytra entirely unicolorous, each with three raised lines; body beneath dark brown or black, with a thin greyish pile; legs and antennæ black, in one specimen some of the intermediate joints of the latter are pale greyish at the base. Length $3\frac{1}{2}$ lines.

HYLLISIA.

*Caput* antice subquadratum, convexum, tuberibus antenniferis validis, erectis, approximatis. *Oculi* mediocres, grosse granulati. *Antennæ* 12-articulatæ corpore duplo longiores, tenues, fere glabræ, scapo elongato, incrassato, cylindrico, articulo secundo brevi, tertio longissimo scapo æquali, cæteris multo brevioribus et subgradatim decrescentibus. *Prothorax* oblongus, capite æqualis. *Elytra* elongata, angusta, lateribus subparallelis. *Pedes* breves; *femora* antica robusta; *tibiæ* intermediæ emarginatæ; *tarsi* angusti, articulo ultimo elongato. *Acetabula* antica parum angulata. *Pro-* et *meso-sterna* simplicia.

In its general appearance this genus lies between *Agapanthia* and *Calamobius**, agreeing, however, more closely with the latter, especially in its cylindrical scape, emarginate intermediate tibiæ, and short legs, but differing from both, *inter alia*, in its erect approximate antennary tubers. Notwithstanding its sober appearance, it is a most interesting addition to the Longicornia of South Africa.

*Hyllisia stenideoides.*

*H.* fulvida, pube grisea sparse tecta.

*Hab.* Natal.

Pale fulvous, sparsely covered with a coarse grey pubescence; head coarsely and closely punctured; mandibles pitchy; palpi reddish testaceous; prothorax nearly cylindrical, longer than broad; scutellum somewhat quadrate, but a little rounded behind; elytra coarsely punctured, elongate, the sides at first nearly parallel, then very gradually narrowing posteriorly, the apex rounded; body beneath with a very thin greyish pile; legs brownish, the tibiæ paler, intermediate tibiæ deeply emarginate; antennæ twice as long as the body, apparently glabrous, but in reality clothed with very short grey hairs, the scape and second joint dark brown, the remainder testaceous, the third black

* M. James Thomson, in his recent work ('Syst. Céramb.' p. 97), refers this genus to *Hippopsis*. The latter has 11-jointed antennæ.

and shining at the tip, the third and fourth respectively gradually paler at the tip. Length 5 lines.

Otteissa.

*Caput* elongatum, antice productum, collo distincto. *Oculi* subangusti, leviter emarginati. *Palpi* cylindrici, obtusi. *Antennæ* graciles, corpore breviores, scapo modice elongato, articulis tertio ad sextum æqualibus, cæteris gradatim decrescentibus. *Prothorax* antice constrictus, lateraliter inermis, disco utroque nodosus. *Elytra* oblonga, apice integra. *Pedes* modice elongati. *Mesosternum* declivum.

Most of the characters of this genus are also those of *Toxotus*; but it differs essentially in the antennæ, the fourth joint being of the normal length, the unarmed prothorax, and the sloping mesosternum. This is the only one of the *Lepturinæ* that I have seen from South Africa, although M. Thomson has two genera from the Cape, both of which are unknown to me: one of these, from the description, (*Pachyticon*) would seem to be an aberrant form, as its antennæ are three times as long as the body. In the other (*Aristogitus*) the males have elongated antennæ, with flattened and dilated joints; the female resembles *Rhagium*.

*Otteissa sericea.*

*O.* pube sericea murina tecta; corpore infra et femoribus basi rufescentibus; abdomine nigro.

*Hab.* Natal.

Head, prothorax, and elytra covered with a short silky pubescence of a pale greyish-smoky or mouse colour, without any evident punctuation; node on the prothorax on each side rather large, and having a transverse impression in front; pectus and femora at the base reddish testaceous; abdomen black or very dark brown, with a thin greyish pile; legs dark brown, antennæ paler. Length 6 lines.

*Phyllocnema mirifica.* (Pl. XIII. fig. 4.)

*P.* cyaneus; elytris chalybeatis; antennis pedibusque, tibiis posticis exceptis, luteis.

*Hab.* Natal.

Head and prothorax deep indigo-blue, both very closely and coarsely punctured, each puncture at the base azure blue; scutellum and elytra dark chalybeate blue, the latter finely and closely punctured with a slightly raised line on each; antennæ, lip, mandibles, and legs luteous yellow, except the dilated portion of the posterior tibiæ, which is of a rich dark blue; body beneath black. Length 7 lines.

In this remarkable species the posterior femora and their tibiæ, taken together, are about thrice the length of the elytra, and the

terminal spine of the posterior tibiæ is very minute; in other respects it does not differ generically from *P. Gueinzii*, White, the type of the genus. In this subfamily (*Callichrominæ*) is to be placed the remarkable short-winged genus *Colobus*, Serv.; but as this name had been employed many years before for a genus of monkeys, I propose *Nothopeus* as a substitute.

*Xystrocera erosa.*

*X.* obscure viridi-metallica; prothorace latitudine elytrorum, disco semicirculariter eroso-impresso; elytris singulis apice rotundatis.

*Hab.* Natal.

Dull metallic green; head much narrower than the prothorax, brown, closely punctured; antennæ brown, the proximal joints roughly punctured, unarmed; prothorax finely punctured, depressed, as broad as the elytra, and about equal in length and breadth, the sides rounded; the disk with an impressed medio-longitudinal line, which begins from a pubescent triangular impression forming part of the anterior marginal groove, and intersected posteriorly by a large crescent-shaped mark, with the concavity forwards, having the appearance as of the derm having been gnawed away, at the side a smaller mark, and beyond these two punctures, all having the same peculiar character; scutellum chestnut-brown, rounded behind, very concave in the middle; elytra with numerous small brownish granulations, each elytron with three longitudinal raised lines and a rounded apex; body beneath, except the propectus, glossy brown, legs darker. Length 10 lines.

The above description is from a male, the only example of this remarkable insect that I have seen. Another species of the genus, also from Natal, and somewhat resembling the preceding, is much less robust in its proportions and paler in colour, with the prothorax transverse, very considerably narrower than the elytra, the medio-longitudinal line obsolete, and the disk of the normal character. It may be named *Xystrocera juvenca**.

*Euporus ignicollis.*

*E.* cæruleo-chalybeatus; capite prothoraceque nitide cupreo-auratis.

*Hab.* Natal.

Light steel-blue, antennæ darker; head and prothorax shining copper or golden red, the latter finely and remotely punctured, especially anteriorly; scutellum narrowly triangular, acute; elytra rich blue, irre-

* It may be diagnosed thus:—

*Xystrocera juvenca.*

*X.* obscure fulvo-viridis; prothorace transverso, vix depresso, linea longitudinali obsoleta. Long. 7½ lines.

gularly punctured; lip and mandibles dark blue; legs and body beneath shining blue. Length 5–6 lines.

A smaller species than *E. strangulatus*, Serv.; the prothorax and head differently coloured, the former smoother and less deeply constricted anteriorly.

*Euporus callichromoides.*

*E.* viridis; capitis vertice nitidissimo; antennis pedibusque cæruleo-chalybeatis.

*Hab.* Natal.

Shining green; head coarsely punctured, except a space on the vertex, where it is smooth and very nitid; eyes and lip dark brown; epistome yellow; mandibles dark blue; prothorax rather coarsely but not closely punctured posteriorly, slightly plicate anteriorly, the constricted portion with a rich iridescent band in certain lights; scutellum oblong, rounded behind, bright green; elytra coarsely and closely punctured, shaded with blue; antennæ nearly twice as long as the body, steel-blue; legs shining chalybeate blue; body beneath green. Length 9 lines.

A stouter form than *E. strangulatus*, Serv., with the femora much less abruptly clavate.

*Promeces iris.*

*P.* cæruleus; elytris cupreo-purpureis, prope suturam viridibus; antennis longissimis, purpureis.

*Hab.*

Head, prothorax, scutellum, body beneath, and legs bright blue, the tibiæ and tarsi and posterior femora with a purplish tint; the head and prothorax with distinct and rather distant punctures; elytra with coarse, confluent punctures, dark coppery purple, lighter internally, passing into rich green towards the suture; antennæ more than twice the length of the body, purplish. Length 6 lines.

A narrower species than any I have seen hitherto, and differently coloured. A single specimen in my collection.

ZAMIUM.

*Caput* breve, tuberibus antenniferis nullis. *Oculi* magni, grosse granulati, reniformes. *Antennæ* corpore breviores, apicem versus compressæ, scapo haud incrassato, articulo tertio æquali vel paulo breviore, quarto tertio breviore, quinto præcedente longiore, cæteris descrescentibus. *Prothorax* deplanatus, lateraliter rotundatus. *Elytra* oblonga, parallela, depressa, apice integra. *Pedes* mediocres; *femora* incurvata; *tibiæ* rectæ; *tarsi* angusti, intermedii et postici, articulo basali elongato. *Coxæ* anticæ parvæ, approximatæ. *Acetabula* antica extus longe angulata. *Corpus* depressum, breviter pilosum.

Except that the eyes have large facets, the species of this group

m.ght have remained united with the old genus *Callidium*, from which, as it formerly stood, there is little else to distinguish it. The genus, however, might still be considered to represent *Callidium* in South Africa, were it not that the latter is now completely broken up, the European species alone occupying seven genera, *C. violaceum* forming the type of the restricted group.

*Zamium incultum.*

*Z.* fusco-brunneum vel fuscum, breviter pilosum; antennis dilutioribus; prothorace trituberculato.

*Hab.* Natal.

Shining brown, inclining to dark chestnut, and covered with short, sparse, greyish hairs and numerous fine punctures; prothorax with three tubercles on the disk, placed triangularly, with the odd one behind; elytra paler posteriorly; antennæ shorter than the body, fulvous, rather pilose. Length 7 lines.

*Zamium succineum.*

*Z.* fusco-castaneum; prothorace haud tuberculato; elytris singulis flavo biplagiatis.

*Hab.* Cape.

Chestnut-brown, finely punctured, very sparsely cŏvered with short, slightly curved hairs; prothorax dull brown, without tubercles; elytra somewhat nitid, paler posteriorly, a large yellowish spot at the middle and another at the apex of each; antennæ nearly as long as the body, slightly pilose. Length 5 lines.

*Zamium prociduum.*

*Z.* minus depressum, brunneum; prothorace haud tuberculato; elytris singulis mediis fulvo plagiatis.

*Hab.* Cape.

Less depressed than in the preceding species, uniformly dark reddish brown, with the punctures more crowded, a single yellow patch on each elytron; body beneath glossy; the pectus reddish. Length 4 lines.

Psebium.

*Caput* exsertum, antice transversum. *Oculi* majusculi, reniformes. *Antennæ* elongatæ, robustæ, subcompressæ, basi distantes, scapo perbrevi obconico, articulo tertio triplo longiore, cæteris brevioribus (ultimo excepto) subæqualibus, et apice lateraliter productis, ultimo subelongato, apicem versus lateraliter inciso. *Prothorax* subcylindricus, irregularis. *Elytra* abbreviata. *Pedes* antici et intermedii incrassati, breves, postici elongati; post-femora linearia; post-tibiæ curvatæ, subcompressæ; *tarsi* omnes breves, præsertim postici, articulis duobus intermediis transversis. *Coxæ* anticæ exsertæ, contiguæ. *Pro-* et *meso-sterna* angustissima. *Abdomen* breve, segmentis subæqualibus.

The above characters are drawn up from a male; what I have very little doubt is, the female is somewhat larger, with a more irregular prothorax, shorter antennæ, and that remarkable peculiarity of abdomen which is found in the female *Obrium* and some cognate genera—that is to say, the second abdominal segment having a large semicircular depression filled with hairs, and the remainder of the segments, also covered with hairs, more or less withdrawn within the second. *Megaproctus*, an anomalous genus from the same country, was placed by M. Chevrolat with the Obriinæ solely on this account; but as modifications of this structure are found in other groups, it does not appear that any great value should be attached to it. In the present genus, having regard to the habit, peculiar distribution of colours, form of the antennæ, imperfect elytra, and legs (except the posterior femora), I know nothing so nearly approaching it as *Akiptera*. Indeed, with *Bimia* and *Agapete*, I think the four genera will form a subfamily allied in some respects to *Hesthesis*.

*Psebium brevipenne*. (Pl. XIII. fig. 2, ♂.)

*P.* nigrum; capitis fronte et lateribus, elytris basi, femoribus anticis et intermediis (basi excepta) fulvis.

*Hab.* Natal.

Black; front, above the lip, and sides of the head, anterior and intermediate femora (except at the base), and the basal half of the elytra pale yellowish; head greatly exserted, but not constricted behind, concave between the antennæ, face short; prothorax shining, a slightly raised tuber on each side of the disk; scutellum rounded behind; elytra narrowed and rounded towards the apex; posterior legs covered with short stiffish hairs; body beneath black, the abdomen greyish brown, the throat yellow. The female has the head, prothorax, the greater part of the elytra, and the body beneath yellowish. Length (♂) 5 lines, (♀) 6½ lines.

Criodule.

*Caput* antice transversum, convexum, tuberibus antenniferis validis, basi approximatis. *Oculi* angusti, late emarginati. *Antennæ* corpore longiores, graciles, haud pilosæ; scapo modice elongato, articulo tertio longiore, cæteris decrescentibus. *Prothorax* oblongus, basi angustior, lateraliter minute dentatus. *Elytra* elongato-ovata, regularia, ad latera fere parallela, apice singula rotundata. *Pedes* graciles; *femora* modice incrassata; *tibiæ* anticæ rectæ, intermediæ fortiter emarginatæ; *tarsi* intermedii et postici articulo basali duobus sequentibus simul longiore. *Prosternum* angustum depressum. *Mesosternum* declive. *Corpus* subdepressum.

This genus should have been placed after *Nonyma*, from which it

differs in its more depressed body, the form of its prothorax, the relative length of the third antennary joint, and other characters.

*Criodule strigata.*

*C.* fulvo-brunnea, pubescens; elytris fortiter striato-punctatis, fusco-strigatis.

*Hab.* Natal.

Thinly pubescent, yellowish brown, with several longitudinal dark brown stripes on the elytra; head with a very scattered greyish pile; mandibles and eyes dark brown; prothorax rather closely punctured, the lateral tooth behind the middle; scutellum rounded behind; elytra strongly striato-punctate, the third and fourth rows connected posteriorly and not reaching the apex; body beneath and legs yellowish brown, with a scant greyish pile; antennæ pale, the scape and tips of the rest of the joints darker. Length $2\frac{1}{2}$–3 lines.

## EXPLANATION OF PLATE XIII.

Fig. 1. *Oriæthus longicornis.*
„ 2. *Psebium brevipenne.*
„ 3. *Opsies capra.*
„ 4. *Phyllocnema mirifica.*
Fig. 5. *Œax triangularis.*
„ 6. *Atybe Plantii.*
„ 7. *Phantasis heros.*

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## XXIII.—*Descriptions of the Species belonging to the genus* Paropsis.

By Joseph S. Baly.

Some years since I undertook, by arrangement with Dr. Gray, to make a Monographic Catalogue of the genus *Paropsis*, founded on the species existing in the Museum collection; for this purpose I obtained the loan of the fine collections belonging to Messrs. Bakewell, Waterhouse, and others, for the sake of comparison, and accumulated a mass of MS. materials for the work. The unlooked-for determination of the Trustees to suspend the publication of their catalogues for an indefinite period has hitherto prevented the completion of my task in the form originally proposed. In despair of seeing the issue of the Museum Catalogues resumed within a reasonable time, I purpose in the present series of papers to draw up descriptions of all the species of the genus to be found in my own collection, not noticing (a few rare instances excepted) any that I do not myself possess.

### Genus Paropsis.

Oliv. Entom. v. p. 597 (1807).

*Notoclea*, Marsh, Linn. Trans. ix. p. 284 (1808).

*Corpus* ovatum, oblongum aut rotundatum, valde convexum. *Antennæ* filiformes aut subfiliformes, dimidio corporis plerumque longiores.

Palpi maxillares securiformes. *Thorax* transversus, antice late emarginatus, lateribus rotundato-dilatatis, integris vel rarius emarginatis. *Elytra* confuse punctata aut punctato-striata, limbo laterali plus minusve dilatato. *Pedes* robusti; tibiis apice oblique incisis, interdum ante apicem angulato-dilatatis, pulvillis linea glabra semper plus minusve longitudinaliter divisis; *unguiculis* unidentatis. Prosternum elevatum.

*Mas. Tarsorum* anticorum quatuor articulo basali plus minusve dilatato, pulvillo integro.

*Fœm. Tarsorum* anticorum quatuor articulo basali non dilatato.

According to those who have observed these insects during life, they often, more especially the paler species, present brilliant metallic colours, which fade entirely away after death; in this respect they resemble many species of *Cassididæ* (*Aspidomorpha*, *Coptocycla*, and true *Cassida*).

The distinctive characters between the sexes are well marked, the females being always to be known by the presence of a longitudinal glabrous line dividing the pulvillus of the basal joint of the four anterior tarsi into two divisions.

Their geographical range is very great: the metropolis of the genus is Australia; but the species crop up, although in greatly diminished numbers, through the Malay archipelago, China, and Siberia, to the eastern confines of Europe, one if not two species being natives of that region. By far the greatest number of the species contained in our cabinets have been brought from the southern portion of the Australian continent and from Tasmania; North Australia will doubtless, however, when fully explored, yield us an equal number of new forms.

The synonymy of the genus is in a very confused and unsatisfactory state: most of the descriptions of the older authors (Fabricius, Olivier, and others) are so short and incomplete that it is quite impossible at the present day to recognize them; in many instances they will fit equally well two or more nearly allied species. Pre-eminent, however, for worthlessness are those of Boisduval in the 'Voyage de l'Astrolabe': excepting in two or three instances, where the insects present a marked feature or some other character too salient to be overlooked, his species are utterly unrecognizable. I shall therefore, in most cases, ignore his work altogether*. It is to

* Much controversy has arisen on the priority of nomenclature: to my view the simple rule appears to be this:—In those cases where the description (although rendered useless by more recent discoveries) was sufficient at the time it was written to determine the insect from which it was made, the name applied by the author should, whenever practicable, be retained, due pains being taken by subsequent writers to ascertain the species from which the description was drawn;

be regretted that H. Stål has added to the confusion by too briefly describing thirteen species in the ' Öfvers. af K. Vet. Akad. Förh.' for 1860; fortunately his insects for the most part are well-marked species, so that in the greater number of cases they may be recognized with tolerable certainty; in some instances, however, it is impossible to make out the species intended without reference to the author's types. The descriptions of Erichson (Wieg. Archiv, 1842) and Germar (Linn. Ent. vol. iii.) are, as might be expected, clear and good as far as they go; but, unfortunately, the great accession of new and closely allied forms since the publication of their respective works has rendered it not always easy to make out clearly the insects to which their diagnoses are intended to apply.

I propose to divide the genus into two sections, viz.:—

I. *Elytra confuse punctata, sæpe tuberculata.*

II. *Elytra singula seriebus decem punctorum impressorum instructa.*

### Section I.

#### *Paropsis variolosa*, Marsham.

*Notoclea variolosa*, Marsh. Linn. Trans. xii. p. 285.

*P.* late ovata, valde convexa, obscure fulva, nitida, antennis extrorsum fuscis; thoracis lateribus ante apicem sinuatis; elytris punctis brunneis aut piceis fortiter impressis, interspatiis (præsertim ad apicem) elevatis, hic illic maculis parvis subelevatis læte fulvis instructis.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, ovatus, apice truncato: *œdeagus* sat elongatus, curvatus, lateribus ad apicem angustatis, apice obtuse angulato, paullo recurvato.

Var. A. Corpore subtus scutelloque piceis.—Long. 6–7 lin.

*Hab.* Melbourne, Adelaide, Sydney.

Broadly ovate, very convex. Head deeply but subremotely punctured; face separated from the clypeus by an angular groove, from the apex of which a grooved line runs upwards to the vertex; antennæ filiform, longer than half the body. Thorax scarcely three times as broad as long; sides obtusely rounded, suddenly converging and deeply sinuate at their apex, anterior angles submucronate; above transversely convex, disk distantly covered with deep round punctures irregularly crowded here and there over its surface; sides deeply and irregularly excavated, variolose-punctate. Scutellum subtrigonate, sides slightly rounded, shining, impunctate. Elytra one-fourth longer than broad,

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on the other hand, all useless and too brief diagnoses, insufficient at any time to characterize the species or separate them from their congeners, ought to be entirely ignored, and the names given by the authors be looked upon in the same light as simple manuscript ones. This rule I would apply to many of the loose descriptions of Boisduval and other authors.

convex; humeral angles slightly produced laterally, their apex obtuse, sides deeply sinuate near their base in front; surface covered with deep, round, fuscous punctures, interspaces raised, thickened, more especially toward the apex, where they become subverrucose; they are also covered with numerous irregular, obsoletely raised, bright-fulvous spots or patches, which are more crowded towards the apex of the elytron.

*Paropsis tasmanica.*

*P.* late ovata, valde convexa, supra obscure fulva, nitida, vertice corporeque subtus nigris, pedibus obscure fulvis, femoribus medio antennisque nigro-fuscis; thorace lateribus obtusis, antice sinuatis, apice mucronatis; dorso fortiter punctato, punctis disci irregulariter hic illic congregatis, ad latera excavato, profunde rugoso-punctato; elytris sat profunde piceo punctatis, interstitiis elevatis, verrucis irregularibus parvis fulvis seriatim dispositis instructis.

*Mas.* Tarsorum anticorum quatuor articulus basalis elongato-ovatus, apice truncato: *ædeagus* modice curvatus, lateribus ad apicem angustatis, apice rotundato, deflexo.—Long. 6–7 lin.

*Hab.* Tasmania.

Head distinctly punctured; epistome separated from the face by an angular groove, from the apex of which a longitudinal grooved line runs upwards to the vertex; antennæ slender, filiform, longer than half the body, their apical third nigro-fuscous. Thorax more than twice as broad as long, apex broadly and deeply excavated, sides obtusely rounded, converging and often sinuate in front, apex obtusely mucronate; upper surface on the disk deeply punctured, the punctures irregularly crowded, having patches here and there free from puncturing, sides broadly excavated, rugose or variolose-punctate. Elytra broader than the thorax, slightly dilated posteriorly, their apex broadly rounded; shoulders nearly rectangular, their apex obliquely rounded; sides sinuate immediately behind the shoulders; upper surface covered with round piceous punctures, the interstices thickened, subverrucose; in addition, on each elytron are eight or more longitudinal rows of small, irregular, slightly raised, bright-fulvous, wart-like elevations, their surface smooth and impunctate; lateral margin moderate, dilated, slightly reflexed, its surface deeply and irregularly punctured, interspaces thickened.

The different form of the *ædeagus*, the presence of the rows of tuberosities on the disk of the elytra, together with the black underside, will serve to distinguish this species from *P. variolosa*.

This insect is also in the collections of Messrs. Bakewell and Waterhouse.

*Paropsis Lownei.*

*P.* late ovata, valde convexa, pallide rufo-fulva, nitida, femoribus dorso, genibus, tibiis, tarsis apice, pectore (sterno excepto), abdominis basi,

antennis, vertice postice, thoracis signaturis scutelloque nigris; elytris thorace multo latioribus, fortiter subcrebre nigro punctatis, interspatiis verrucosis.

*Mas.* Tarsorum anticorum quatuor articulus basalis anguste ovatus, apice truncato: *ædeagus* modice elongatus, curvatus, ad apicem sublinguæformis, apice ipso deflexo.—Long. 6 lin.

*Hab.* Sydney. Collected by Mr. Lowne.

Head coarsely punctured between the eyes; epistome more closely but more finely punctured, separated from the face by a slightly curved line, the middle of which is obsoletely angled and sends a perpendicular groove upwards towards the vertex; antennæ slender, filiform, rather more than half the length of the body, black, their basal joints pale fulvous. Thorax more than twice as broad as long; sides nearly parallel, very obtusely rounded, their outer edge slightly irregular; suddenly converging and sinuate in front, anterior angles mucronate; upper surface strongly punctured, the punctures on the disk irregularly crowded; sides broadly excavated, deeply variolose-punctate. Scutellum smooth, shining black. Elytra much wider than the thorax, scarcely longer than broad; shoulders nearly rectangular, their apex rounded, sides sinuate behind the shoulders, apex obtusely rounded; upper surface impressed with deep black punctures, the interspaces, especially on the sides and apex, verrucose; dilated margin somewhat reflexed, its surface irregularly produced and much more strongly verrucose than the disk.

Very similar in form to *P. variolosa*; the much narrower thorax, black scutellum, and black markings on the thorax, together with the different form of the *ædeagus*, will easily distinguish it from that species.

Several specimens of this fine species are also in the Rev. H. Clark's Collection.

### *Paropsis Wilsoni.*

*P.* late ovata, valde convexa, flavo-fulva, nitida, antennis extrorsum nigro-fuscis; thorace lateribus obtuse rotundatis, antice sinuatis, apice obtuse mucronatis; disco distincte punctato, punctis hic illic congregatis, ad latera irregulariter excavato, varioloso; elytris piceo punctatis, interstitiis lævibus, fere planis.

*Mas.* Tarsorum anticorum quatuor articulus basalis elongato-ovatus, apice truncatus: *ædeagus* curvatus, lateribus parallelis, apice obtuse rotundato, subito deflexo.—Long. 6 lin.

*Hab.* Adelaide.

Head distinctly punctured; epistome separated from the face by an angular groove, from the apex of which a longitudinal grooved line runs upwards on the face; antennæ filiform, about equal in length to half the body. Thorax three times as broad as long, sides obsoletely crenulate, obtusely rounded, narrowed and sinuate in front, very obtusely mucronate: upper surface punctured in a similar manner to that of

*P. variolosa.* Elytra scarcely broader than long, broader than the thorax, dilated posteriorly, apex very broadly rounded; shoulders slightly produced laterally, their apex obtuse; surface of disk covered with large round pitchy punctures, less closely placed than in *P. tasmanica*, interspaces plane, impunctate, obsoletely thickened on the outer disk and near the apex; lateral margin moderately dilated, its surface deeply and irregularly punctured, interspaces thickened.

The shorter form, smooth elytra, and differently shaped *œdeagus* will separate this very distinct species from its congeners.

*Paropsis Waterhousei.*

*P.* late ovata, valde convexa, fulva, nitida; thorace disco tenuiter crebre, ad latera profundius punctato, lateribus rotundatis, antice angustatis; elytris croceis, fortiter subcrebre punctatis, interstitiis distincte crebre punctatis, apicem versus subelevatis.

*Mas.* Tarsorum anticorum quatuor articulus basalis sat dilatatus, apice truncato: *œdeagus* elongatus, curvatus, lateribus parallelis, apice angulato, paullo recurvato.—Long. 6–7 lin.

*Hab.* Adelaide.

Broadly ovate, very convex, pale shining fulvous. Head very finely punctured, face separated from the clypeus by a semiovate grooved line, the middle of which is slightly angular; apex of jaws black; antennæ slender, filiform, scarcely half the length of the body. Thorax not three times as broad as long; sides rounded, narrowed in front, anterior angles somewhat obtuse; above transversely convex, finely and closely punctured, sides covered by a broad shallow excavation, more coarsely punctured. Scutellum subtriangular, smooth and shining. Elytra scarcely one-fourth longer than broad, slightly dilated posteriorly, their apex broadly rounded; shoulders indistinctly produced, rectangular, their apex obtuse; sides slightly sinuate immediately behind the anterior angles; above very convex, surface covered with deep but not very large punctures, interspaces finely but distinctly punctate, slightly elevated towards the apex; dilated margin indistinctly reflexed.

The much closer, finer, and more regular punctation of the whole upper surface separates this species from its allies.

*Paropsis Parryi.*

*P.* late ovata, valde convexa, subtus nigra, nitida, tibiis (apice excepto) femorumque vittulis flavis; supra sordide flava, scutello antennisque (his basi exceptis) nigris; thorace disco irregulariter remote punctato, ad latera varioloso; elytris fortiter punctatis, punctis subremotis, interspatiis lævibus, elevatis, pone medium et ad latera verrucosis.

*Mas.* Elytrorum anticorum quatuor articulus basalis elongato-ovatus, apice truncato: *œdeagus* elongatus, apice lanceolatus, apice ipso breviter recurvato; subtus membranaceus.—Long. 7–7½ lin.

*Hab.* Australia.

Head distinctly but not coarsely punctured; epistome separated from the face by an angular groove, from the apex of which a grooved line runs directly upwards to the vertex; antennæ slender, filiform, rather longer than half the body, three basal joints yellow, streaked with black on their upper surface, fourth fulvous, smooth; apical joints of maxillary palpi black. Thorax more than twice as broad as long; sides obtuse, converging at the base, suddenly converging and sinuate at the apex, anterior angles obtusely mucronate; upper surface distinctly punctured, punctures distant in the middle of the disk, more crowded on its sides; sides broadly excavated, variolose. Scutellum shining black. Elytra much broader than the thorax, about one-fifth longer than broad, somewhat dilated posteriorly, their apex regularly rounded; shoulder nearly rectangular, rounded at the apex, produced slightly outwards and scarcely backwards; sides sinuate immediately behind the anterior angles; surface rather more finely and somewhat less closely punctured than in *P. Lownei*, the punctures concolorous with the disk, interspaces also rather less distinctly verrucose; lateral margin broadly dilated, slightly reflexed, its surface covered with deep punctures, which form irregular transverse striæ, their interspaces strongly elevated.

Although *P. Parryi* is clearly distinct from *P. variolosa*, it is just one of those cases where it becomes difficult to point out the diagnostic marks in words. *Parryi* is a somewhat larger insect, its colour on the upper surface (with the exception of the black scutellum) is one uniformly dull flavous hue; the humeral angles of the elytra are rather more prominent, the lateral border being also rather more dilated and reflexed; the interspaces between the punctures on the disk, although thickened and more verrucose posteriorly, are without the slightly raised irregular patches usually to be seen in *P. variolosa*; its thorax is also rather narrower. From *P. Waterhousei* it can be separated by the differently formed thorax and much rougher punctation of its whole surface; whilst from *P. tasmanica*, *P. Lownei*, and *P. Wilsoni* the recurved instead of deflexed apex of its *œdeagus* will at once distinguish it. I only know two specimens, male and female, formerly in Major Parry's cabinet, and probably from Northern Australia.

*Paropsis suspiciosa.*

*P.* subquadrato-ovata, convexa, dorso subdepressa, fusco-fulva, nitida, thoracis lateribus basi rotundatis, hinc ad apicem rotundato-angustatis; elytris subtenuiter et subseriatim fusco punctatis, singulis vittis quinque impunctatis, margine laterali profunde inordinatim punctato; subtus nigro-picea; capite, thoracis lateribus, abdominis margine pedibusque obscure fulvis.—Long. 7 lin.

*Hab.* Melbourne.

Subquadrate-ovate, convex, flattened above, shining fusco-fulvous

Head finely but not very closely punctured; epistome separated from the face by a semiovate groove, the middle of which is slightly angular and sends a short groove upwards on the face; antennæ slender, subfiliform, nearly half the length of the body; apex of jaws black. Thorax nearly three times as broad as long; apex broadly and deeply excavated; sides rounded at the base, thence rotundate-angustate to their apex, anterior angles subacute; above transversely convex, finely but not very closely punctured; sides irregularly excavated, slightly thickened at the extreme outer margin, coarsely punctured; in the centre of the excavated portion is a deep, round fovea. Scutellum semiovate. Elytra nearly one-fourth longer than broad; shoulders subrectangular, their apex rounded; sides slightly, apex regularly rounded; above convex, flattened along the suture; surface covered with numerous fine but deeply impressed fuscous punctures, arranged in broad longitudinal rows; on the disk of each elytron there are five smooth impunctate interspaces, which extend from the base nearly to the apex of the elytron, the two outer being interrupted and less distinct at their base; dilated border smooth and shining, its surface covered with large, deeply impressed, fuscous punctures. Body beneath shining nigropiceous; head, sides of thorax, outer border of abdomen, and legs obscure fulvous.

This species, of which I know only a single specimen (a female), can be readily separated by its flattened upper surface from any of the other species of the section with which it is at all likely to be confounded; in shape it closely resembles the female of *P. morio*, Fab.

*Paropsis fulvo-guttata.*

*P.* ovata, valde convexa, obscure fulva, nitida; frontis maculis quatuor, thoracis maculis decem elytrisque nigris, his singulatim margine laterali, vitta submarginali maculisque irregularibus in vittas interruptas novem dispositis fulvis; subtus nigra, nitida; capite, thorace, abdominis segmentorum margine pedibusque fulvis.—Long. $5\frac{1}{2}$–6 lin.

*Hab.* Adelaide.

Ovate, very convex, dark shining fulvous; four oblong patches on the head, two on the thorax, placed in two transverse rows, together with the elytra, black, with the lateral border, a submarginal stripe confluent at the base with the border itself, and also a second line a short distance below its middle, together with numerous large irregular spots, arranged in nine more or less interrupted longitudinal rows, dark fulvous. Head punctured; face separated from the clypeus by an indistinct grooved line, front longitudinally depressed; apex of jaws and four patches on the upper surface of the head black, of these latter the first two, straight and nearly oblong, are placed between the eyes, the two others on the vertex are larger, oblique, and placed one on either side, externally to the former; antennæ very slender, fili-

form, about half the length of the body. Thorax more than three times as broad as long; apex broadly and deeply emarginate, middle of excavated portion slightly produced, sides rounded at the base, thence converging obliquely to the front, anterior angles with their apex obtuse; above transversely convex, sides irregularly excavated, coarsely punctate, disk finely and rather closely punctured. Scutellum semiovate. Elytra subovate, very convex; shoulders subrectangular, their apex obtuse; above deeply and irregularly, but not very closely, punctured, the fulvous patches, which become obsoletely raised towards the apex of the elytron, are, together with the submarginal stripe, finely punctate. Beneath shining black; head, thorax, margin of abdominal segments, and also the legs dark fulvous, four posterior thighs marked on their anterior surface, near its apex, with a black patch.

More regularly ovate than any of the preceding, from which, however, as well as from all the other species of the section, its peculiar pattern and colouring will separate it.

*Paropsis reticulata*, Marsham.

*Notoclea reticulata*, Marsh. Linn. Trans. ix. p. 285, tab. 24. fig. 2.
*Paropsis incarnata*, Erichs. Wieg. Archiv, 1842, p. 226.
—— *sanguinipennis*, Germ. Linn. Entom. iii. p. 233 (1848).

*P.* subquadrato-ovata, valde convexa, flavo-fulva, nitida, antennis extrorsum fuscis; thorace fusco variegato, lateribus rotundato-dilatatis, antice sinuatis, disco subremote punctato, punctis irregulariter congregatis, ad latera excavato, minus crebre varioloso-punctato: elytris crebre et profunde fusco punctatis, interspatiis elevatis, postice verrucosis; sanguineis, piceo aut fusco maculatis.

Var. A. Elytris sanguineis, maculis piceis obsoletis.

Var. B. Elytris sanguineis, verrucosis, margineque flavis.

Var. C. Corpore pallide flavo, elytris fusco maculatis.
*Notoclea quadrimaculata*, Marsh. ? *l. c.* p. 287, tab. 24. fig. 6.

Var. D. Corpore toto flavo.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, ovatus, apice truncato: *œdeagus* robustus, abrupte curvatus, lateribus parallelis, apice rotundato-angulatus, apice dente acuto non recurvato armato, subtus membranaceus.—Long. 5–6 lin.

*Hab.* South Australia, Sydney.

Subquadrate-ovate, regularly convex, shining fulvous yellow; elytra pale sanguineous, stained here and there with piceous markings. Head punctured; clypeus separated from the face by a narrow groove, which curves downwards at either end, its middle being angular and sending a longitudinal groove upwards to the vertex; eyes and extreme apex of jaws black; antennæ moderately robust, filiform. Thorax more than three times as broad as long; sides rounded, converging and sinuate in front, anterior angles submucronate; above transversely

convex, sides irregularly excavated, variolose-punctate, disk subremotely irregularly punctured, the middle portion sometimes nearly free from punctures. Scutellum smooth, semiovate. Elytra one-third longer than broad, dilated posteriorly, very convex; shoulders nearly rectangular, indistinctly reflexed, their apex obtuse, sides obsoletely sinuate just below the anterior angles; surface closely covered with deeply impressed fuscous punctures, their interstices smooth, elevated, verrucose towards the apex of the elytra; pale sanguineous, stained with obscure piceous markings (these, when present, usually consist of a submarginal stripe and three round patches placed longitudinally on the disk); lateral border moderately dilated. Beneath pale fulvous yellow.

*P. reticulata* may be separated from *P. variolosa* and the other previously described species by its smaller size and more closely verrucose elytra; the punctures on the sides and hinder portion of the elytra, and occasionally even over the whole surface, are connected with each other by a network of grooved lines, forming numerous small reticulations, each one of these being filled by a raised wart-like tuberosity. From *P. atomaria*, the next species, it presents the following differences: its general form is much more regularly convex; when viewed laterally, its upper outline forms a regular curve, of which the highest point, however, is rather before than behind the middle of the body; in *P. atomaria* the curve is much less regular, the anterior portion of the body, from the head to beyond the middle of the elytra, being more or less distinctly flattened, and rising gradually from before backwards, the highest point being thus placed behind the centre of the body; from this part to the apex the outline forms a regular curve: in *P. reticulata* the thorax is broader, its sides being entire, broadly rounded, sinuate in front, the upper surface being also more finely and closely punctured; in *P. atomaria* the sides are much more obtuse, less dilated, and slightly bisinuate, the upper surface being more distantly but more deeply punctured: in *P. reticulata* the puncturing on the elytra is rather closer, and irregularly placed over the whole surface; in *P. atomaria*, on the other hand, the punctures near the suture are arranged in irregular rows, leaving longitudinal smooth and impunctate interspaces, which usually are raised and form distinct costæ, but are occasionally plane and not elevated above the general surface of the disk.

Common in collections.

*Paropsis atomaria*, Marsh.

*Notoclea atomaria*, Linn. Trans. ix. p. 286, tab. 24. fig. 3.
*Paropsis dilatata*, Erichs. ? Wieg. Archiv, 1842, p. 226.

*P.* ovalis, postice paullo ampliata, convexa, antice (a capite ad ultra

medium) declivis; pallide flava aut fulva, subnitida, antennis (basi excepta) fuscis; thorace lateribus obtuse rotundatis, leviter bisinuatis, angulo antico submucronato; disco fusco maculato, profunde punctato, punctis sæpe piceis, hic illic irregulariter congregatis, ad latera excavato, varioloso-punctato: elytris thorace multo latioribus, pallide croceis, obsolete nigro maculatis, profunde piceo punctatis, punctis inordinatim dispositis, antice prope suturam subseriatis; interstitiis ad latera et apicem versus elevatis, plus minusve verrucosis, iis prope suturam sæpe costas longitudinales læves formantibus.

Var. A. Pallide flava, thoracis elytrorumque maculis obsoletis.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, elongato-ovatus: *ædeagus* minus abrupte curvatus, lateribus parallelis, apice subangulatus, apice ipso dente brevi subacuto, vix recurvato, armato.—Long. $4\frac{1}{2}$–$6\frac{1}{6}$ lin.

*Hab.* Tasmania, Melbourne, Adelaide?

Head irregularly punctured; epistome separated from the face by an angular groove; face more or less stained with fuscous patches; antennæ slender, filiform, more than half the length of the body. Thorax twice as broad as long, sides obtusely rounded, slightly sinuate in the middle and again immediately behind the anterior angle, the latter submucronate: upper surface deeply punctured; the punctures on the disk, usually few in number, are congregated here and there in irregular groups on the surface, leaving large spaces free from punctures; in some specimens, however, the puncturing is much more crowded, and nearly covers the whole disk; sides broadly excavated, variolose-punctate. Elytra much broader than the thorax, somewhat dilated posteriorly, rather longer than broad, their apex regularly rounded; shoulders obtusely angled or nearly rectangular, their apex obtuse; sides scarcely sinuate behind the anterior angles, obtusely angled about their middle; above convex, somewhat flattened and obliquely deflexed in front from the head to just beyond the middle of the elytra, thence regularly rounded to the apex; surface deeply and somewhat closely covered with large piceous punctures, interspaces thickened, verrucose; on the inner disk, in front, the punctures are arranged in irregular rows, between which in most specimens are four or five longitudinal, slightly raised, smooth costæ, which sometimes are entirely obsolete; lateral margin broadly dilated, slightly reflexed; on the surface of the disk are usually some indistinct, ill-defined, fuscous patches, which form maculariform transverse bands.

This species is also in the cabinets of Messrs. Waterhouse and Bakewell.

*Paropsis maculata*, Marsh.

*Notoclea maculata*, Marsh. Linn. Trans. ix. p. 287, tab. 1. fig. 5.

*P.* rotundato-ovata, valde convexa, fulva, nitida, antennis (basi prætermissa) nigris; thorace lateribus profunde bis emarginatis, disco tenuiter minus crebre punctato, ad latera excavato, et ibi foveolato et varioloso:

elytris obscure rufo- aut testaceo-fulvis, margine laterali pallidioribus subremote fusco punctatis; plagis irregularibus, longitudinaliter intra marginem positis, aliisque disci, his magnis, quadratim digestis, maculisque parvis numerosis subelevatis lævibus flavis, ornatis; interstitiis prope apicem subelevatis.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, ovatus, apice truncato: *ædeagus* abrupte curvatus, apice rotundatus, apice ipso dente brevi obtuso recurvato armato; subtus late membranaceus.—Long. 4 lin.

*Hab.* Sydney.

Head distinctly punctured; epistome separated from the face by an angular groove, from the apex of which a longitudinal grooved line runs upwards on the face; antennæ longer than half the body, slender, filiform. Thorax considerably more than twice as broad as long, sides deeply bisinuate, anterior angles obtuse; disk finely but not closely punctured, sides excavated, variolose-punctate, impressed in the middle with an ill-defined, smooth fovea. Elytra not longer than broad, scarcely dilated behind, their apex broadly rounded; disk subremotely impressed with deep fuscous punctures, interstices plane, slightly and irregularly thickened towards their apex; on the disk conjointly are placed four large, irregular, slightly raised, smooth, impunctate, bright yellow patches, which, standing out in strong relief from the dark ground of the disk, are arranged two on each elytron, as follows, viz.: one placed obliquely below and within the humeral callus (this spot most frequently divides into two or more smaller spots, and more rarely forms only a single patch); the second is situated on the inner disk, just below its middle,—the four forming the corners of a square space on the back; an irregular row of similar patches, which gradually diminish in size posteriorly, is placed along the inner edge of the dilated border; a number of smaller spots are also scattered over the surface of the disk; rather larger and more crowded on the inner disk in front, they are much smaller and more distantly placed on the remainder of the surface; lateral margin broadly dilated, indistinctly reflexed. Prosternum unisulcate.

The smaller, more rotundate form, together with the large flavous patches on the elytra, will readily distinguish this species from any others with which it can be confounded.

*Paropsis marmorea*, Olivier.

Entom. v. p. 599, pl. 1. fig. 4.

*P.* ovata, convexa, obscure fulva, nitida, antennis (basi excepta) nigris; thorace lateribus valde bis emarginatis, disco irregulariter flavo maculato; elytris fortiter subcrebre fusco punctatis, interstitiis apicem versus elevatis, maculis irregularibus lævibus, subelevatis, verrucosis, flavis instructis.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus,

ovatus, apice angulato-rotundatus, apice ipso dente obtuso brevissimo recurvato armato; subtus minus late membranaceus.—Long. 5 lin.

*Hab.* Melbourne.

Ovate, convex, obscure shining fulvous; antennæ (their base excepted) black, deeply punctured. Head punctured, epistome separated from the face by an angular groove, either extremity of which curves suddenly downwards; antennæ half the length of the body, slender, filiform, black, the three or four basal joints pale fulvous; apex of jaws also black. Thorax more than twice as broad as long; sides nearly straight near the base, converging in front, bilobate, their outer edge being divided by two deep sinuosities, the first placed scarcely before the middle, the other near the anterior angle; the angle itself is submucronate, its apex obtuse; disk finely and subremotely punctured, sides broadly excavated, coarsely variolose-punctate, whole surface covered with irregular, pale yellow markings, which are sometimes obsolete. Scutellum subtrigonate, smooth and shining. Elytra nearly one-third longer than broad; humeral angles obtusely angled, their apex obtuse; sides slightly sinuate immediately behind the humeral angles; above very convex, surface covered with large, deeply impressed, round, fuscous spots, more crowded towards the apex, where the interstices become thickened and subverrucose; scattered here and there over the whole surface of the elytra are numerous, small, irregular, indistinctly raised, bright yellow spots, their surface smooth, shining, and only impressed with a few fine punctures; these are more crowded and somewhat larger on the anterior two-thirds of the inner disk than elsewhere, four of them rather larger than the rest form the four corners of a square on the back; they are placed two on each elytron, the first obliquely just below and within the humeral callus, the other near the outer edge of the inner disk at some distance below its middle; there is also an irregular longitudinal row of similar patches placed along the anterior two-thirds of the inner edge of the lateral border; outer margin broadly dilated, scarcely reflexed, punctured in a similar manner to the disk. Prosternum longitudinally sulcate.

This insect is most nearly allied to *P. geographica*; the position of the four larger spots on the elytra, together with the narrower unisulcate prosternum in *P. marmorea*, as contrasted with the broader bisulcate prosternum in *P. geographica*, will separate the two species: from *P. lutea* it is readily separated by its smaller size, the less-crowded punctures and less-thickened interstices of its elytra, and the far more numerous and differently placed flavous spots; the thorax is also less closely and deeply punctured.

*Paropsis geographica.*

*P.* late ovata, ♂; ovata, ♀; valde convexa, pallide flavo-fulva aut læte fulva, nitida; antennis (basi excepta) nigris, thorace fusco maculato,

lateribus profunde bisinuatis, disco evidenter subcrebre punctato, ad latera sat excavato, rude rugoso-punctato; elytris profunde piceo punctatis, interstitiis elevatis, postice verrucosis, maculis nonnullis parvis subelevatis flavis ornatis; prosterno minus angustato, bisulcato.

Var. A. Elytris croceis, disci maculis concoloribus.

Var. B. Minor, metasterno piceo.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, ovatus, apice truncato: *ædeagus* abrupte curvatus, lateribus parallelis, apice obtuse rotundatus; apice ipso dente brevissimo obtuso vix recurvato armato; subtus medio longitudinaliter membranaceus.—Long. $4\frac{1}{2}$–$5\frac{1}{2}$ lin.; var. $3\frac{3}{4}$ lin.

*Hab.* Adelaide.

Very closely allied to *P. marmorea*, narrower, the female more regularly ovate, the elytra in that sex being rather more dilated behind, their shoulders being at the same time more deflexed and less prominent. Thorax punctured as in *P. marmorea*; surface of elytra covered with deep piceous punctures, those on the dilated margin are concolorous with the general surface of the margin itself, from which cause it appears brighter and paler than the disk; on the surface of the latter are seen a number of small, slightly prominent, shining pale yellow spots, some of these rather larger are placed, one just below and within the humeral callus, a second on the outer edge of the inner disk, immediately below its middle, and a third, rather smaller, just within and rather nearer the apex than the second, a fourth is also placed on the middle of the inner edge of the lateral margin, and a fifth on the basal margin close to the scutellum, the others, usually small and punctiform, and more distant than the similar spots in *P. marmorea*, are scattered over the surface. Prosternum rather broader than in the other allied species, its middle longitudinally elevated, causing the surface to appear bisulcate.

It will be seen from the above description that this insect, from the position of the second flavous patch on the elytron, approaches *P. lutea*; it may be distinguished from that insect by its broader bisulcate prosternum and pale underside, also by the membranous portion on the underside of its *ædeagus* being much narrower; the position of the spot is also slightly different.

The variety B. is also in the Rev. H. Clark's cabinet.

*Paropsis lutea*, Marsh.

*Notoclea lutea*, Marsh. Linn. Trans. ix. p. 286, pl. 24. fig. 4.
*P. ægrota*, Boisd.? Faune de l'Océanie, p. 563.

*P.* late ovata, valde convexa, pallide flavo-fulva aut flava, nitida; antennis (basi excepta) nigris; thorace lateribus profunde bis emarginatis, disco evidenter punctato, ad latera excavato, varioloso; elytris profunde subcrebre piceo punctatis, interstitiis elevatis, postice verrucosis, pustulis

nonnullis parvis subelevatis lævibus sparse ornatis; subtus nigro-picea aut nigra, thoracis lateribus, elytrorum limbo, prosterno tibiisque (his apice excepto) flavo-fulvis.

Var. A. Supra crocea, elytrorum maculis elevatis obsoletis.

Var. B. Prosterno nigro.

Var. C. Corpore subtus pallide piceo.

Var. D. Corpore subtus ut in typo; pedibus luteis, fusco maculatis.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, ovatus, apice truncato: *ædeagus* abrupte curvatus, apice rotundatus, apice ipso dente brevissimo recurvato armato; subtus late membranaceus.—Long. 5–6 lin.

*Hab.* Melbourne; Tasmania.

Head punctured; face separated from the clypeus by a semiovate, distinctly impressed groove, its middle portion slightly angular and sending a longitudinal groove upwards on the face; antennæ slender, filiform, more than half the length of the body, black, two or three basal joints and several of the following beneath flavo-fulvous; apex of jaws black. Thorax three times as broad as long; apex deeply and broadly excavated; sides deeply bisinuate, above transversely convex; disk covered with distinct punctures irregularly congregated here and there over the surface, sides broadly excavated, concave, coarsely variolose-punctate, middle of excavated portion impressed with one or two deep foveæ. Scutellum subtriangular, smooth, pale shining yellow. Elytra one-fifth longer than broad, very convex; shoulders obtusely angled, slightly reflexed, their apex obtuse; sides slightly sinuate just behind the anterior angles; above very convex, very obsoletely gibbose just before the middle, surface closely covered with deep, round, fuscous punctures, interstices smooth and shining, thickened and subverrucose towards the apex of the elytron, dilated border rather less closely punctured, the interstices elevate-reticulate; each elytron with five or six smooth, indistinctly raised, small, pale yellow spots scattered over the disk; these patches, which are much smaller than those in *P. marmorea* and other allied species, are arranged as follows, viz., one on the inner edge of the lateral border, near its middle, a second placed obliquely just within and below the humeral callus, a third just within the outer edge of the inner disk, immediately below its middle, and, more rarely, a fourth at the basal margin, close to the scutellum. All these spots, when present, occupy invariably the same positions on the surface: I have only seen one specimen in which the third was wanting, but one or more of the others are often absent; in addition are six or seven others (frequently obsolete), scattered at distant intervals over the surface of the disk. Beneath shining black; prosternum, the tibiæ (their apex excepted), and the base of the thighs fulvous. Prosternum longitudinally grooved.

In the cabinets of Messrs. Waterhouse and Bakewell as well as my own.

*Paropsis consimilis.*

*P.* late ovata, valde convexa, ante medium obsolete gibbosa, sordide flava aut fulva; antennis (basi prætermissa) nigro-fuscis, thorace lateribus profunde bis emarginatis, disco profundius subcrebre punctato, ad latera excavato, rugoso-varioloso; elytris profunde subcrebre piceo punctatis, interstitiis elevatis, postice verrucosis, pustulis nonnullis parvis subelevatis lævibus læte flavis sparse ornatis; subtus obscure fulva, piceo aut nigro variegata, femoribus sæpe infuscatis.

Var. A. Elytrorum maculis elevatis obsoletis.

*Mas.* Tarsorum anticorum quatuor articulus basalis sat dilatatus, irregulariter ovatus, apice truncato: *ædeagus* ut in *P. lutea* formatus, sed subtus angustius membranaceus.—Long. $5\frac{1}{2}$–6 lin.

*Hab.* Adelaide.

Broadly ovate, very convex, slightly but distinctly gibbous just before the middle of the back. Head punctured, epistome separated from the face by an angular groove, from the middle of which a grooved line runs upwards on the face; antennæ slender, filiform, two-thirds the length of the body. Thorax considerably more then twice as broad as long, sides deeply bisinuate; disk somewhat closely punctured, sides excavated, variolose-rugose. Elytra slightly broader than long, very slightly dilated posteriorly, their apex broadly rounded; shoulders obtusely angled, their apex obtuse; sides very slightly sinuate just below the anterior angles; above very convex, slightly gibbous before their middle, somewhat closely and deeply impressed with piceous punctures, interstices thickened, verrucose posteriorly: on the disk of each elytron are a few small, pale yellow, slightly raised patches, entirely similar to those on *P. sparsa*; they are arranged, however, somewhat differently, viz. one obliquely just within and below the humeral callus, a second, in the same line, placed between the inner and outer disks a short distance below their middle, and a third, somewhat smaller, subapical, placed on the middle of the inner disk: there is also occasionally to be seen an ill-defined patch or vitta on the inner edge of the lateral margin, near its middle; in addition are four or five minute spots scattered at distant intervals over the inner disk before its middle. Prosternum longitudinally grooved.

This very distinct although closely allied species may be known from the preceding one by the distinct gibbosity of its elytra, the different arrangement of the spots (which are equally constant in relative position) on the surface, and also by the slight but constant difference in form and under surface of the *ædeagus*; the thorax also in the present species is usually more closely and finely punctured.

*Paropsis propinqua.*

*P.* late ovata, valde convexa, subnitida, læte fulva; antennis (basi prætermisa) fuscis; thorace sæpe fusco maculato, lateribus profunde bis emar-

ginatis, disco irregulariter punctato, ad latera excavato, et ibi foveolato, varioloso-punctato; elytris croceis, profunde punctatis, interspatiis elevatis verrucosis, singulorum disco maculis parvis subelevatis nonnullis in vittas interruptas dispositis, læte flavis; tarsis plerumque piceis.

*Mas.* Tarsorum anticorum quatuor articulus basalis dilatatus, ovalis, apice truncato: *ædeagus* fortiter curvatus, a basi apicem versus paullo ampliatus, apice late angulato-rotundatus, apice ipso dente brevi recurvato armato.—Long. $4\frac{1}{2}$–$5\frac{1}{2}$ lin.

*Hab.* Adelaide.

Head punctured; epistome separated from the face by an angular groove; eyes and apex of jaws black; antennæ slender, filiform. Thorax more than twice as broad as long, sides deeply bisinuate before their middle, apical angle submucronate; disk irregularly punctured, sides broadly excavated, impressed with a large, smooth fovea, variolose-punctate. Elytra much wider than the thorax, somewhat dilated posteriorly, their apex very broadly rounded; shoulders nearly rectangular, their apex obtuse, sides sinuate immediately behind the anterior angle; above very convex, deeply impressed with piceous punctures, lateral margin broadly dilated, its punctures concolorous with the general surface; along its inner edge is a row of large, irregularly confluent, slightly raised, impunctate, bright fulvous patches; on the inner disk are also two or more vittæ, more or less interrupted, formed of similar patches, but somewhat smaller than those on the lateral border. Prosternum equal in breadth to that of *P. geographica*, broadly sulcate, surface of the groove rugose.

This species is apparently not so common as many of the others; it has been sent to this country by Mr. Waterhouse of Adelaide.

### *Paropsis carnosa.*

*P.* subrotundata, ♂; late ovata, ♀; valde convexa, flavo-fulva aut crocea, nitida, supra rufo-testacea; antennis flavis, ad apicem aut vix infuscatis aut nigris, rarius corpore concoloribus; thorace lateribus medio profunde angulato-emarginatis, antice obliquis plus minusve sinuatis, disco subcrebre punctato, ad latera late foveolato, rugoso-varioloso; elytris profunde subcrebre piceo punctatis, interstitiis irregulariter elevato-tuberculatis.

*Mas.* Tarsorum anticorum quatuor articulus basalis sat dilatatus, ovatus, apice truncato: *ædeagus* abrupte curvatus, parallelus, apice angulato-rotundatus, apice ipso dente brevissimo obtuso recurvato armato; subtus subcorneus.—Long. $4\frac{1}{2}$–$5\frac{1}{2}$ lin.

*Hab.* Adelaide.

Head closely punctured; epistome short, separated from the face by a slightly angular groove; antennæ more than half the length of the body, flavous, slightly stained with piceous towards their apex, rarely black; apex of jaws and eyes black. Thorax nearly three times as broad as long, sides angularly notched in the middle, thence nearly

either straight or sinuate, very obliquely converging to the apex, the latter usually submucronate; above somewhat closely punctured, sides broadly foveolate, indistinctly thickened within the lateral border, rugose-punctate. Elytra rather broader than long in the male, nearly equal in length to the breadth in the female, dilated posteriorly; shoulders nearly rectangular, their extreme apex obtuse, sides obsoletely sinuate immediately below the shoulders, apex very broadly rounded; upper surface very convex, the highest point being in front of the middle of the body, deeply impressed with dark piceous punctures, interstices strongly verrucose; lateral margin broadly dilated; in some specimens the elytra are stained with indistinct fuscous patches, these are formed by the punctures on those portions of the surface being black instead of piceous. Prosternum broadly sulcate, surface of the sulcation rugose.

The notch (placed on the middle of the sides of the thorax) is more regular than in most of its congeners. In *P. consimilis* and most of the other species, the notch is situated immediately in front of the middle, and more obliquely incised. In form *P. carnosa* approaches very closely *P. lutea*; the elytra, however, are much more closely verrucose; the prosternum is also rather broader. The antennæ in the present species vary much in colour: sometimes they are black, the base alone being fulvous; in other specimens they are entirely fulvous.

This species has lately been sent over in some abundance by Messrs. Angas and Waterhouse.

*Paropsis roseola.*

*P.* subrotundata, ♂; late ovata, ♀; valde convexa, fulva, nitida, supra testaceo-fulva aut crocea; antennis fulvis, ad apicem leviter infuscatis; thorace evidenter punctato, ad latera excavato-rugoso, lateribus modice bisinuatis; elytris profunde piceo punctatis, interstitiis antice subelevatis, postice et ad latera verrucosis, disco obsolete nigro maculato; tarsis piceis.

*Mas.* Tarsorum anticorum quatuor dilatatis, apice truncatus: *ædeagus* curvatus; apice obtuse rotundato, medio obsolete angulato, deflexo. —Long. 4 lin.

*Hab.* Adelaide.

Head distinctly punctured; epistome separated from the face by an angular groove, from the apex of which a longitudinal groove runs upwards on the face; apex of jaws and eyes black; antennæ pale fulvous, slightly stained at their apex with fuscous. Thorax three times as broad as long, sides moderately bisinuate; disk somewhat closely punctured, sides deeply excavated, rugose-variolose. Elytra slightly broader than long in the male, about equal in length to the breadth in the female, scarcely dilated posteriorly; shoulders rectangular, their extreme apex

obtuse, obsoletely reflexed; apex broadly rounded; upper surface very convex, the highest point being about the middle of the body; impressed (but less closely than in the last species) with deep piceous punctures; interstices nearly plain or but slightly raised on the inner disk in front, verrucose on the sides and behind, the wart-like elevations often flavous; on the disk are several large but indistinct black patches, formed in the same manner as in *P. carnosa*. Lateral margin broadly dilated.

This species approaches in form, both of body and thorax, to *P. obsoleta*; but it may at once be known from that species by the closer punctation of the elytra and the different form of the *œdeagus*.

Also collected by Mr. Angas.

*Paropsis obsoleta*, Oliv.

*Paropsis obsoleta*, Oliv. Entom. v. p. 600, pl. 1. fig. 5 (1807).
*Notoclea obsoleta*, Marsh. Linn. Trans. ix. p. 288 (1808).

*P.* subrotundata, valde convexa, flava, subnitida; antennis (basi excepta) nigro-fuscis; thorace lateribus modice bisinuatis, disco tenuiter punctato, ad latera excavato, varioloso; elytris profunde subremote nigro aut piceo punctatis, interstitiis ad latera et apicem versus elevatis, subverrucosis, obsolete fusco maculatis, maculis in series transversas dispositis.

Var. A. Elytrorum maculis obsoletis.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, apice late truncato: *œdeagus* basi sat abrupte curvatus, apice ovato-angulatus, apice ipso dente brevi subacuto vix recurvato armato.—Long. $3\frac{1}{2}$–$4\frac{1}{2}$ lin.

*Hab.* Adelaide, Sydney.

Head somewhat closely punctured; epistome separated from the face by an angular groove, which sends a short grooved line from its apex upwards on the face; antennæ nigro-fuscous or black, fulvous at their base. Thorax considerably more than twice as broad as long; sides broadly rounded, moderately bisinuate; disk very finely but not closely punctured, sides slightly excavated, variolose. Elytra scarcely longer than broad; shoulders nearly rectangular, their apex very broadly rounded, sides very slightly rounded, apex broadly rounded; above very convex, deeply but subremotely impressed with black or piceous punctures, interstices thickened near the apex and also on the sides, subverrucose; lateral margin broadly dilated, an irregular space along the anterior two-thirds of its inner border smooth and impunctate; disk of each elytron stained with a number (about ten) of indistinct black spots; these, which are arranged in three transverse bands, are merely the faint traces (seen through the substance of the elytron) of black spots placed on the under surface of the latter. Prosternum broadly and deeply sulcate; surface of the sulcation rugose.

This species may be known from its congeners by the much more distant punctation of its elytra, also by its subglobular form: it is more convex than *P. roseola*, the highest point of the convexity being nearer the base of the elytra.

*Paropsis porosa*, Erichs.

Wiegm. Archiv, 1842, p. 226.

*P.* ovata, valde convexa, subtus nigra, nitida; prosterno, metasterno, linea transversa (medio angulata) tibiisque extrorsum flavis; supra flava, antennis (articulis basalibus subtus exceptis) verticisque macula nigris; thorace lateribus bisinuatis, angulo antico obtuse mucronato; disco sat fortiter irregulariter punctato, ad latera excavato, rugoso-varioloso; elytris subcrebre profunde piceo aut nigro punctatis, interstitiis elevato-reticulatis, ad apicem subverrucosis; prosterno ante medium elevato, transversim convexo, pone medium bisulcato.

*Mas.* Tarsorum anticorum quatuor articulus basalis modice dilatatus, apice truncato: *œdeagus* fortiter curvatus, lateribus parallelis, apice rotundato-angulato, dente brevissimo vix recurvato armato.—Long. 4–5 lin.

*Hab.* Melbourne, Tasmania.

Ovate, convex. Head finely but distinctly punctured; face separated from the epistome by an angular impressed black line, which sends upwards a longitudinal black groove to the vertex, the latter stained with a black patch; antennæ filiform, black, the basal together with the under surface of the three following joints yellow. Thorax rather more than three times as broad as long, sides bilobate, rounded at the base, anterior angles submucronate; above moderately convex, irregularly punctured, sides excavated, coarsely and deeply variolose-punctate. Scutellum smooth, impunctate, its outer border sometimes edged with black. Elytra very convex, about one-fourth narrower than long; shoulders obtusely angled, obsoletely reflexed, their apex rounded; sides subparallel in front, slightly sinuate just behind the anterior angles; surface somewhat closely covered with deeply impressed round punctures, which are more or less stained with black or piceous within; interstices smooth, thickened, subverrucose towards the apex of the elytron. Beneath smooth, black; pro- and meso-sterna, a large angular patch on the metasternum, together with the outer edge of the tibiæ, shining yellow.

The form of the prosternum separates this species from all its congeners.

This species is rather variable in size, and is one of the commonest in the genus.

[To be continued.]

# JOURNAL OF ENTOMOLOGY.

No. XII.—March, 1865.

## XXIV.—*Contributions to an Insect Fauna of the Amazon Valley.*—Lepidoptera—Nymphalinæ. By H. W. Bates.

[Continued from p. 213.]

[Plates XIII*. & XIV.]

Genus Ageronia (Hübn.), Dbldy. in Dbld. & Hewits. Gen. p. 80.

In Boisduval's 'Species Général des Lépidoptères' this genus was placed, as a tribe equivalent to *Papilionides*, *Pierides*, &c., in the section "*Succeints*," owing to a statement of Lacordaire (who studied the habits of insects at Cayenne), that the pupæ were girt with a silken thread. I convinced myself, by repeatedly rearing two species of the genus, that this is a mistake, and that the pupæ hang by the tail like the rest of the Nymphalidæ, with which the perfect insects agree in all essential points of structure. The larvæ resemble those of *Epicalia*, *Callithea*, &c., in being armed with branched spines, and in having two longer spines projecting from the summit of the head. They differ from allied larvæ in having, besides the shorter spines of the body, several longer and thicker hispid lobes proceeding from the second, third, fifth, tenth, and eleventh segments. They feed on the leaves of a succulent climbing plant on the borders of woods. The chrysalides have a deep notch on the dorsal surface of the thorax, and two long flattened appendages proceeding from the head.

In consequence of this discovery of the true position of the pupæ, Dr. Felder has abolished the tribe or family Ageronidæ, and placed the genus, together with *Pandora*, to which the perfect insects have great resemblance, in the neighbourhood of *Ectima* and *Epicalia* in the family Nymphalidæ—a position which I believe to be their true one.

Dr. Felder speaks of the discoidal cells in this genus as closed. The

term "closed" has not, however, the same signification in this case as in the Heliconidæ and Satyridæ; for the lower discocellular nervule is never tubular and perfect in the hind wings of the true Nymphalidæ (except, perhaps, in *Clothilda*), but is partially or wholly a rudimentary seam. This character is a good one to distinguish true Nymphalidæ from the allied groups.

74. *Ageronia Chloë*, Stoll.

*Papilio Chloë*, Stoll, pl. 5. f. 3.

Pará and Lower Amazons. I did not find it on the upper river; nor does it appear to occur in New Granada or further northward. The species, therefore, seems to be confined to the Atlantic side of Tropical America, ranging from Surinam to S. Brazil. Specimens from Bahia do not differ from those I took on the banks of the Amazons. The species haunts the shades of the forest, differing in this respect from the rest of the genus, which prefer open groves or thinned places near the skirts of the forest.

75. *Ageronia Ferentina*, Godart.

*Nymphalis Ferentina*, Godt. Enc. Méth. ix. 428. 248.
*Papilio Feronia*, var., Cramer, 362 A, B.
*Ageronia Februa*, Hübn. Samml. Exot. Schm.

A common and widely distributed insect, being found from South Brazil to Mexico, and in the West India Islands. It frequents orange-orchards and open sunny places in the forest, settling on trunks of trees with wings expanded, and when sporting or quarrelling with a companion makes a sharp cracking noise with its wings. The same habits are observed in *A. Feronia*, *A. Amphinome*, and *A. Arinome*.

76. *Ageronia Feronia*, Linnæus.

Cramer, 192 E, F.

The commonest species of the genus in the Amazons region, being found in spaces in the forest where there is no underwood, or in orange-orchards and plantations, settling on the trunks of trees. The caterpillar has its sides of a brown colour, marbled with darker brown, and the dorsal surface pinkish.

77. *Ageronia Alicia*, n. sp. (Pl. XIII*. figs. 1, 1 *a*.)

♂. Expanse 3″ 8‴. Slaty green, silky. Fore wing, *above*, with many black or dusky variously shaped spots; namely, four within the cell, besides one on the disco-cellulars, the two middle ones transverse and linear, enclosing a deep red spot, the one next to these preceded by a pale brown spot, and two to four between each of the longitudinal nervures, nearly

all of which are margined with a paler hue than the ground-colour of the wing. Besides these dark spots, there are from ten to twelve pale brown spots, one or two between each of the longitudinal nervures. The margins of the wing are marked with blackish patches, and the fringe is spotted with white. Hind wing, *above*, with one black spot crossing the cell, and three lying over or near the disco-cellulars, besides one between each of the longitudinal nervures, all margined wholly or partly with pale green. There is also a row of six black ocelli, encircled with pale green, parallel to the outer margin, the two outermost of which are blind, the four inner ones furnished with slaty-green pupils, having each a central pale speck. *Beneath*: fore wing ochreous at the base; the rest of the wing dark brown, with three equidistant belts of white spots. Hind wing clear saffron-yellow, the outer margin black, with a quadrate ochreous spot between each interspace of the nervures; besides which there are three ochreous spots, margined with black, parallel to the apex. Abdomen, *above*, black, spotted with pale green. The thorax, *above*, slaty green, with two curved dorsal stripes meeting behind and a central spot black. Antennæ elongate, ringed with white.

In the neuration this differs from the male of *A. Fornax*, which it resembles in colours underneath, by the upper radial nervure of the fore wing arising close to the subcostal, and by the lower disco-cellular joining the median close to its terminal fork. This large and fine species was met with only at St. Paulo, Upper Amazons. It has the same habits as its congeners, but is much swifter in flight. Although I saw several, I was able to capture only one example.

78. *Ageronia Belladonna*, n. sp. (Pl. XIII*. fig. 3.)

♂. Expanse 3″ 1‴. Similar to *A. Amphinome* in colour and markings; differs in wanting the white belt and in other characters. Fore wing, *above*, black, with light-blue markings arranged as in *A. Amphinome*, with the exception of there being a large blue circle exterior to the lower disco-cellular, and two blue lines instead of a blue patch between the origins of the first and second median branches; the white belt of *A. Amphinome* replaced by a row of four round grey spots, a fifth similar grey spot lying near the apex of the wing. Hind wing with light-blue markings, and ocelli precisely similar to those of *A. Amphinome*. *Beneath*: fore wing red near the base, the rest black, crossed by two belts of white spots, the first lying beyond the middle, and consisting of five large spots, the second near the apex, consisting of two smaller ones; besides these, there is a pale spot crossing the cell, and a row of blue spots parallel to the outer margin; this latter has a row of seven short bluish-white lines or spots. Hind wing rich orange-red, the outer margin and borders of the outer nervures black; the black border is broad at the apex, where there are two rows of light-blue spots, the rest of the outer border having only a single marginal row.

The costa of the fore wing is greatly distorted in this species, curving outwards near the apex; with this structure is connected a contraction of the space between the cell and apex of the wing, and a great thickening of the nervures at the end of the cell. Otherwise the direction of the nervures differs only slightly from that seen in the ♂ *A. Amphinome*.

I met with this handsome species only at St. Paulo, where it was a common species about tree-trunks on the borders of the forest.

79. *Ageronia Amphinome*, Linnæus.

*Papilio Amphinome*, Linn. S. N. ii. 779. 176.
—— ——, Cramer, 54 E, F.

A common and widely distributed species, ranging from South Brazil to Guatemala. It has been recorded also as found in Cuba.

80. *Ageronia Arinome*, Lucas.

*A. Arinome*, Lucas, Rev. et Mag. Zool. 1853, p. 310.

This species has been generally confounded with *A. Amphinome*. The difference in colour and markings *above* is very slight: *beneath*, the red colour of the hind wings is reduced to two basal and a submarginal row of four or five spots. The shape of the fore wings, however, differs a little, the costa being much more curved near the apex, and the space between the first and second median branches being greater. These characters seem constant; and I believe it to be a species distinct from *A. Amphinome*.

*A. Arinome* is found in company with *A. Amphinome* throughout the Amazons region.

81. *Ageronia Arethusa*, Cramer.

♂. *Papilio Arethusa*, Cram. 77 E, F.
♀. —— *Laodamia*, Cram. 130 A.
♂. *Ageronia Arete*, Lucas, Rev. et Mag. Zool. 1853, p. 310.

Found at many places on the banks of the Amazons and its tributaries; Cametá, Obydos, and Ega. It seems also to be common in Guatemala, from which country I have seen a long series of examples captured by Mr. Osbert Salvin. The species appears to be the same as the *A. Arete* of Lucas (Rev. et Mag. Zool. 1853, p. 310, and Dr. Felder, Ein neues Lep. p. 18), who seems to apply Cramer's name to an allied species having many more blue spots on the upper surface of the fore wings; but Cramer's species is evidently the one which has a clear black space and few spots on the centre of the fore wings. The species may also be known by having three red spots

at the base of the hind wings *beneath* ; at least the thirteen specimens now before me from the Amazons and Guatemala have all this mark of distinction.

82. *Ageronia velutina*, n. sp.

♂. Expanse 3″ 2‴. Closely resembling the figure given in Doubleday & Hewitson's 'Genera Diurn. Lep.' pl. 10. fig. 2, as representing *Ageronia Arete* of Boisduval. Boisduval's *A. Arete*, however, according to the description published by M. Lucas as cited under the preceding species, is identical with Cramer's *P. Arethusa*. The figure given by Messrs. Doubleday & Hewitson, in the absence of a description and figure of the under side, is insufficient to enable one to identify the species. *A. velutina* differs from it in the absence of the light-brown hue of the costal border of the hind wing.

*Ageronia velutina* ♂ differs in the form of the wings from *A. Arethusa* ♂, the outer borders being more bowed outwards, and the costa of the fore wing being regularly arched, without indentation opposite the end of the cell. Connected with this absence of indentation is a striking difference in the neuration of the wing—the upper and middle disco-cellulars, as well as the portion of the subcostal between the origin of the second branch and the end of the cell, being very oblique, instead of deflected almost in a transverse direction as in *A. Arethusa*; the lower disco-cellular also joins the median close to its terminal fork, instead of at a great distance from it as in *A. Arethusa*. The whole under surface of the wings in *A. velutina* has a rich, silky, changing bluish gloss, and the red basal spots of the hind wing are only two in number.

Found at various places on the Upper and Lower Amazons, in the same situations as *A. Arethusa*, *A. Feronia*, &c. I did not meet with the female.

Genus Didonis (Hübn.), Westw. in D. & H. Gen. p. 407.

The larvæ of this genus, according to the figure given by Boisduval in the Crochard edition of Cuvier's 'Règne Animal,' resemble those of *Ageronia* in having setigerous lobes proceeding from many of the abdominal segments; in the long cephalic spines they resemble the larvæ of the whole group of Nymphalidæ to which *Epicalia*, *Ageronia*, *Callithea*, and so forth belong. In the neuration of the wings *Didonis* agrees with many genera of this same group. I do not see, therefore, why the genus should be withdrawn from the true Nymphalidæ and placed with others in a separate family (Eurytelidæ or Biblidæ), as many lepidopterists have done, following the example of Dr. Boisduval. The rounded shape of the wings and inflated base of the costal nervure cannot be signs of great divergence when so much variety of shape exists in the family, and so many

genera have one or more of the nervures similarly swollen. The enlarged apical joint of the palpi in the males and the simple style of coloration are the distinguishing characters of the genus. I think its true place is in the neighbourhood of *Ageronia*.

83. *Didonis Biblis*, Fab.

*Papilio Biblis*, Fabr. Syst. Ent. p. 505, n. 261.
—— *Hyperia*, Cramer, 236 E, F.

This species offers slight variations according to locality; but the form which I met with abundantly on the Upper Amazons, at Ega, agrees with the type found at Surinam, as figured by Cramer in the place quoted. The insect flies about waste grounds on the borders of the forest, hovering moderately slowly over bushes.

Genus Olina (Dbldy.), Westw. in D. & H. Gen. p. 407.

This genus was placed by Westwood, with the preceding, in the family Eurytelidæ. Its true position, notwithstanding the elongated wings and the wholly different style of coloration, is next to *Didonis*, with which it agrees in neuration and shape of antennæ. The species fly low, and hover about over the herbage with expanded wings, in the manner of most Nymphalidæ. They live habitually in the forest. I think there can be no doubt of the near relationship of this and the following genus to *Pyrrhogyra*, *Victorina*, and *Eubagis*.

84. *Olina Mariana*, n. sp.

♂. Expanse 2″ 8‴. Similar in size and shape to *O. Azeca* (Doubld. & Hewits. Gen. pl. 31. f. 3). *Above*, black: fore wing with a short basal greyish-white streak, a broad, much broken, white belt across the middle, a narrow macular white belt towards the apex, a grey streak nearer the apex, and two grey spots close to the hind angle; the central white belt begins at the subcostal nervure and ends a considerable distance from the outer border, its upper part is detached from the rest and forms a large spot within the end of the cell. The hind wing has a short submarginal row of greyish-white spots, and a continuous fine line, of the same hue, nearer the outer border; the outer margin is dentate, the projections being very obtuse, and the sinuses edged with white. *Beneath*, brownish black, the fore wing having the same spots as *above*, but larger: the hind wing has an orange-tawny streak, commencing at the base, running, near to the costal nervure, round the apex, and terminating in a large patch at the anal angle; the disk has a bluish streak surrounded with brown, the outer margin has two rows of elongated spots, the inner one being bluish and the outer ashy white. Body, *above*, black; thorax with two transverse grey streaks, collar spotted with grey. Antennæ black; palpi underneath and breast whitish.

I took one example only of this handsome species, in the heart of the forest at Ega, hovering about a low tree in a sunny opening.

85. *Olina Emilia*, Cramer.

*Papilio Emilia*, Cram. 223 E, F.

Common in thinned parts of the forest throughout the Amazons region. The examples taken near Pará agree pretty closely with the Surinam type as figured by Cramer; but on the Upper Amazons it varies considerably, the subapical white spots becoming a continuous belt, and the white stripe of the hind wings, in some examples, disappearing; the size also is inclined to be larger. This form has been described (as a geographical variety) by Dr. Felder under the name of *O. Cœcilia*. It is not, however, a well-defined local form or race, as examples conformable to the type are found mingled with it in the same parts of the forest. The species can be said only to show a tendency to the segregation of a race in the region of the Upper Amazons. Dr. Felder's specimens came from the Upper Rio Negro.

Genus Cystineura (Boisd.),
Westw. in Doubld. & Hewits. Gen. Diurn. Lep. p. 406.

The mode of flight of the species constituting this genus is similar to that of the *Olinæ*, near to which *Cystineura* is placed, in the family Eurytelidæ, by Westwood.

86. *Cystineura Tocantina*, n. sp.

♀. Expanse 1″ 10‴. Very similar in shape and markings, and almost identical in colours, with *C. Hypermnestra*, Hübner. Differs *above* in wanting the dark-brown, festooned marginal line of hind wing, and *beneath* in the pale marginal lunules of the hind wing not being bordered on either side with a dark line. The central dark belt of the hind wing is rather broader, and the succeeding white belt much less macular, than in *C. Hypermnestra*. The outer border of the same wing, as well as the white macular belt, have no trace of dark edging.

Taken on the borders of woods, at Cametá, on the banks of the river Tocantins.

Genus Pyrrhogyra (Hübner),
Westwood, in Doubld. & Hewits. Gen. Diurn. Lep. p. 252.

This distinct and at present well-defined genus seems to be more nearly allied to *Cystineura* and *Olina* than any other of the admitted groups of Nymphalidæ. The bases of the fore-wing costal and median nervures are swollen, although not to the extent beheld in the genera which formerly constituted the family Eurytelidæ. The palpi

are also greatly elongated in the female sex—a feature which again reminds one of the family just mentioned. But the shape of the wings, style of coloration, &c. are entirely those of typical Nymphalidæ. In their habits the species somewhat resemble the Heterochroæ, which again resemble the Limenites. They frequent narrow sunny openings in the lofty and humid forests, and have a sailing and wheeling flight, soaring rapidly to the tops of the trees if rudely disturbed whilst hovering nearer the ground.

The larvæ of *Pyrrhogyra Tiphus* and *P. Neærea* resemble in shape and armature those of *Epicalia* and *Callithea*, having two long, verticillate cephalic spines, and numerous shorter abdominal spines with radiating smaller spines at their tips.

87. *Pyrrhogyra Cuparina*, n. sp.

♂. Expanse 2″ 3‴. Closely allied to *P. Edocla* (Doubld. & Hewits. Gen. pl. 32. f. 5); but the costa of the fore wing is more arched, and the apex much less pointed, although the hind wing is prolonged in a similar way at the anal angle. Wings blackish brown, with a large common greenish-white spot much broader than that of *P. Edocla*, and rounded at its upper extremity: to this, on the fore wing, follows a rather narrow and somewhat crescent-shaped greenish-white spot, and a small dot of a similar hue nearer the apex. The central spot extends to and partly invades the abdominal border of the hind wing. *Beneath*, the markings and colours are similar to those of *P. Edocla*, the costal part of the fore wing having two parallel crimson stripes; but the red colour entirely encircles the minor greenish-white spot. The crimson stripe of the hind wing is broad, and shows no tendency to become lunulated; its outer edge has no blue spots, and only a narrow blackish-brown edging; the ashy borders are clear, and the brown line which runs through them is very distinct and slender.

I met with one example only of this very elegant species, namely, in the forests of the River Cuparí.

88. *Pyrrhogyra Otolais*.

*Pyrrhogyra Otolais*, Bates, Entomologist's Monthly Mag. Nov. 1864.

This species is closely allied to *P. Edocla* and *P. Cuparina*; but it differs from both in the shape of the wings, which resembles that of *P. Neærea*. *P. Otolais* seems to be rather a common insect in Guatemala and Mexico. In the Amazons region it occurred only at St. Paulo, on the Upper River; but the specimen I obtained there seems to indicate a local variety, differing in the smaller size of the second greenish-white spot of fore wing, and in the narrower form of the discoidal patch, which nevertheless extends a little into the

cell of the fore wing. The fore wing has also two whitish spots near the middle of the outer border, in place of the obscure whitish streak of the Mexican specimens: *beneath*, the red belt is broader and much less lunulated than in the typical form. As only a single example was found, I am unable to say whether these differences are constant, and so refrain from treating it as a distinct form with separate name.

89. *Pyrrhogyra Tiphus*, Lin.

*Papilio Tiphus*, Linn. Mus. Reg. Ulr. p. 308.
—— ——, Clerck, Icones, t. 32. f. 3.
—— *Tipha*, Cramer, pl. 8. f. D, E.

Pará; rare, in moist hollows in the virgin forest, flying mostly near the tops of trees. Pará examples of the male agree precisely in breadth of white belt, &c., with the Guiana type, as figured by Cramer. I have specimens also from the Isthmus of Panama which scarcely differ from the Surinam type, and a female example from South Brazil agreeing precisely with the same sex of the Pará form.

90. *Pyrrhogyra Amphiro.*

♂ ♀. Expanse 2″ 8‴. Closely allied to *P. Tiphus*. Wings similar in shape; but fore wing rather more pointed, with outer margin more incurved. Black, a common, broad, pale greenish-white discoidal belt reaching on the fore wing to the base of the first median branch, and on the hind wing covering more than half the cell. To this succeeds, on the fore wing, a broad oval spot, of the same hue, and a subapical whiter spot, conspicuous in both sexes. The black outer borders have, in the female and in some examples of the male, a row of obscure whitish spots. *Beneath*: the form and extent of the red lines same as in *P. Tiphus*; but the row of semicircular white spots on the outer borders are not clearly defined and semicircular as in that species.

Upper Amazons, Ega, and St. Paulo; common. These differences are constant in all the specimens I obtained of *P. Amphiro*, which therefore constitutes a well-defined local variety or race of the *P. Tiphus* stock. It is curious that such a form should exist in the middle of the geographical area of the true *Tiphus*, which, as before remarked, extends from Panama to South Brazil.

91. *Pyrrhogyra Neœrea*, Linn.

*Papilio Neœrea*, Linn. Mus. Reg. Ulr. p. 297.
—— ——, Cramer, pl. 75. f. C, D.
—— —— (transformations), Stoll, pl. 4. f. 3.

A common insect in the forest over the whole Amazons region. It conforms to the Surinam type more closely on the Upper Amazons

than on the lower river (Pará and River Tapajos), where the black borders are rather narrower, and the size of the insect smaller, than in the normal form. The bases of the costal and median nervures are very strongly inflated in this species, almost as much so as the costal is in the genera *Cystineura* and *Olina*. Its flight is very similar to that of the *Olinæ*; but it wheels about over the bushes and lower trees, not so near the ground as is the habit of the *Olinæ*.

Genus Victorina, Blanchard, Animaux Articulés, vol. iii. p. 447.

In this genus the bases of the fore-wing nervures are quite simple, and the palpi of the female only slightly more elongated than those of the male. The distinguishing character of the genus is the strong curve upwards which the median nervure describes after the emission of its second branch. It is this which chiefly distinguishes one of the species (*V. Sulpitia*) from *Heterochroa*, to which it has more resemblance in other respects than to its associate, *V. Steneles*.

92. *Victorina Steneles*, Linn.

*Papilio Steneles*, Linn. S. N. ed. x. p. 465, n. 39.
—— ——, Cramer, pl. 79. f. A, B.

Widely distributed in Tropical America, from Guatemala to South Brazil. It frequents open sunny places, such as deserted plantations and the borders of woods. I have not seen any local modifications from any part of its range.

93. *Victorina Sulpitia*, Cramer.

*Papilio Sulpitia*, Cramer, pl. 328. f. A, B.

Found on the Upper Amazons, sparingly, settling on moist places, on the borders of streams, &c.

Genus Eubagis (Boisd.), Dbldy. in D. & H. Gen. p. 233.

94. *Eubagis Agacles*, Dalman.

*Papilio Agacles*, Dalman, Analecta Entomologica, 47.

A small, delicate species, little more than an inch in expanse. I found it only on the Lower Amazons, flying about the skirts of woods near the banks of the river at Pará and on the River Cuparí. Its mode of flight, like that of all the other species of the genus, resembles that of the *Pyrrhogyræ*, but is much weaker.

95. *Eubagis Leucothea*, n. sp.

♂ ♀. Expanse 1″ 5‴. Wings, *above*, black; fore wing with a triangular spot occupying the middle of hind border and the disk, and four spots

(two on the costal and two on the outer border) pure white: the triangular spot has straight margins, and the second costal spot is much larger than the three others. The basal half of the costal border has a metallic-bluish stripe. The hind wing has the whole central part of a pure-white hue, leaving only the extreme base and a moderately narrow outer border black. In the female the outer borders are broader, and that of the hind wing has an obscure whitish streak in the middle. *Beneath*, same pattern as *above*; but the edges of the dark borders are reddish, and a submarginal bluish-plumbageous line traverses the outer borders of both wings. The fore wing has a curved bluish line from base to middle, and three spots of the same hue nearer the apex. In the female there is an elongated white spot in the middle of the rufous border of hind wing, and an inner double plumbageous line shorter than the outer one.

Ega; very abundant, flying over bushes in thinned parts of the forest. The pupa resembles that of *Pyrrhogyra Neæra* as figured by Stoll. It is green in colour, with dorsal surface of the abdomen reddish, and has two, short, curved processes on the back—one at the base of the abdomen and one near the front border of the thorax.

### 96. *Eubagis Cœnus*, Fabricius.

*Papilio Cœnus*, Fab. Ent. Syst. III. i. 308. 169.

The true *Eubagis Cœnus* is a native of Southern Brazil, and is distinguished from *E. Leucothea* by its spotless hind wings, and by the white discal spot of the fore wings being very irregular in outline, owing to the confluence with it of two of the white spots of the borders. I met with specimens on the banks of the Tapajos which very closely approximate towards *E. Cœnus*, but differ in the hind wings having a very narrow dusky border, and in the first subcostal spot of the fore wing only being confluent with the white central spot. In these points the specimens form a connecting link between *E. Cœnus* and *E. Leucothea*, and compel us to conclude that both are local forms of one and the same stock.

### 97. *Eubagis Anubis*, Hewits.

*Eubagis Anubis*, Hewits. Exot. Butt. Eub. f. 16 & 17.

Differs from *E. Leucothea* chiefly in the presence of a triangular rufous spot on the costal margin of the hind wing beneath. It appears to be a widely distributed insect: I found it on the banks of the Cuparí, in the interior of Brazil, and at St. Paulo on the Upper Amazons, and have also a specimen from Nicaragua. The female differs from the male in the same way as in the case of *E. Leucothea*.

98. *Eubagis Athemon*, Linnæus.

*Papilio Athemon*, Linn. S. N. i. 484, n. 157.
—— ——, Linn. S. N. ii. 792, n. 243.
—— —— (♀), Clerck, Icones, t. 37. f. 2.
—— —— (♂), Clerck, Icones, t. 46. f. 3, as var.
—— —— (♂ ♀), Hübner, Samml. Exot. Schm.

I found this species abundant in neglected and weedy coffee-plantations and on the borders of the forest at Pará and Cametá, and also on the Upper Amazons, on both sides of the river from Ega to St. Paulo. The Pará specimens agree with the figures given by Clerck and Hübner; but those from the Upper Amazons differ in the outer border of the hind wing, in both sexes, being traversed by a plumbageous instead of a white line. This is scarcely sufficient to warrant their distinction as a separate-named race, especially as some examples of intermediate character are found flying together with the better-marked forms.

99. *Eubagis Chryseis*, n. sp. (Pl. XIV. figs. 2, 2 *a*.)

♂. Expanse 1″ 8‴. Fore wing rather pointed, and outer margin slightly incurved towards the hind angle of the wing. Wings, *above*, silky green; apex and outer border of fore wing deep black, the border being very broad near the apex, but much narrowed near the hind angle between the first and second median branches. Hind wing with a very narrow black border. *Beneath*: fore wing, basal third white, with a reddish stripe over the subcostal nervure, and a black belt across the cell to the hind margin; apical two-thirds black, with five large white spots—namely, three in a row across the wing, and two near the outer margin, the one towards the apex being twice the size of the others; the outer margin is reddish, with a submarginal darker line edged with plumbageous; a few plumbageous spots also exist at end of cell and over the disk of the wing. Hind wing white, the base and five stripes (all of equal thickness) reddish; the second and third stripes diverge slightly from the costa to the abdominal border, and the fourth unites with the fifth near the costa and the anal angle; at the latter point there is a short black streak and two plumbageous lines.

I took only one example of this elegant species, namely, at St. Paulo, on the Upper Amazons.

100. *Eubagis Erchia*, Hewitson.

*Eubagis Erchia*, Hewits. Exot. Butt. Eub. f. 7, 8, ♂.
—— ——, Hewits. Exot. Butt. Eub. f. 10, ♀.

This charming and peculiarly-coloured species has a very limited area of distribution, being confined, as far as at present known, to

the neighbourhoods of Ega and Tunantins on the Upper Amazons. To the east of Ega it does not appear to occur; and eighty miles to the west of Tunantins its place is occupied by the closely allied form *E. vicaria*.

101. *Eubagis vicaria*, n. sp.

♂. Expanse 1″ 7‴–2″ 4‴. Shape of wings the same as in *E. Erchia*. *Above*, silky green, with the pale spots of the under surface of fore wing faintly shining through; outer border of same wing very narrowly black, with the tip rather more broadly black, and a triangular spot of the same hue in the middle of the border. Hind wing with a marginal and submarginal black line, thickened where the nervures cross them. *Beneath*: hind wing the same as in *E. Erchia*, both sexes. Fore wing the same as in the female of *E. Erchia*, the basal half of the costal border being orange tawny, variegated with plumbageous markings (namely, one in the middle of the cell crook-shaped, and three succeeding it wedge-shaped), and the rest of the wing black with six large white spots, with apical margin tawny traversed by a slender plumbageous line.

This species occurs at St. Paulo, eighty miles to the west of the district inhabited by *E. Erchia*. The two forms have the same habits; and where one is found, the other is absent.

102. *Eubagis Decima*, Hewitson.

*Eubagis Decima*, Hewits. Exot. Butt. Eub. f. 4, 5, 6, ♂ ♀.

Found on the borders of the forest, sparingly, throughout the Amazons region.

103. *Eubagis Racidula*, Hewitson.

*Eubagis Racidula*, Hewits. Exot. Butt. Eub. f. 2, 3, ♂; f. 9, ♀.

This species is also widely distributed in the Amazons region; but it has not quite so extensive a range as *E. Decima*, being absent from the Pará district. At Ega it occurred every year in great numbers, the males hovering about and settling on moist places and ordure on the ground near the forest, and the females flying about the flowers of low trees.

104. *Eubagis Amplias*, Hewitson.

*Eubagis Amplias*, Hewits. Exot. Butt. Eub. f. 18, 19, 20, ♂ ♀.

I met with this well-marked and pretty species only at St. Paulo, on the Upper Amazons, where it occurred in the broad alleys of the forest.

105. *Eubagis Sara*, n. sp. (Pl. XIV. figs. 1, 1 *a*.)

♂. Expanse 1″ 6‴. Closely resembling *E. Tithia* (Hübner) and *E. Salpensa* (Felder); differs from both, at first sight, by the greater number and clearness of the white spots of upper surface of fore wings. *Above*, dark silky green; fore wing with a streak across the middle of the cell, and the apical two-thirds of the surface, black. There are nine tolerably clear white spots, arranged in three belts, viz. 2, 4, 3. The hind wing has the costal border dusky, and a twin ashy-white spot in the middle of it: the outer margin is festooned, and the outer limb has three black lines (namely, one on the margin, the second submarginal, and the third more distant) terminating before reaching the anal angle. *Beneath*, the fore wing scarcely differs from that of *E. Tithia*, the only difference being that the black colour extends to the base of the first median branch. The hind wing differs in being of a silky-white hue, and having thicker rufous stripes, the central one of which is broadest on the costa and gradually narrowing thence to its termination.

Not uncommon at St. Paulo, settling on ordure on the ground in the forest.

106. *Eubagis Neoris*, Hewitson.

*Eubagis Neoris*, Hewits. Exot. Butt. Eub. f. 23, 24, ♂.

I saw only two or three examples of this pretty species, which were flying about the lower trees in a broad alley of the forest at St. Paulo.

107. *Eubagis Glauce*, n. sp.

♂. Expanse 1″ 2‴–1″ 7‴. Allied to *E. Serina* (Fab.), but much smaller, and differing both above and beneath in both sexes. The male, *above*, is silky green, with the markings of the under surface faintly shining through: the costal border of fore wing has a blackish spot about the middle, and the apex and outer border are black; this black outer border has its inner edge trisinuate, and near the apex is a dingy ashy-white streak. The hind wing has a submarginal and marginal black line, and also an obscure, interrupted, thicker, dusky belt nearer the disk, scarcely visible in some examples. *Beneath*, the fore wing scarcely differs from that of *E. Serina*. The central part is black, with five large white spots, and the entire margin of the innermost spot is black. The hind wing has, like that of *E. Serina*, four orange-tawny belts (including the basal and marginal ones); the inner discoidal belt has its broadest part on the costa; the outer discoidal belt is abbreviated at the apex, and has on its outer border two plumbageous ocelli, margined with black only on their outer edges; the inner and outer margins of the belt have well-limited, continuous, black lines—a character which distinguishes *E. Glauce* from all allied species. ♀, *above*, brown, with dusky-brown belts, and white belt and spots, as in *E. Serina* ♀. The bases of the wings, however, entirely want the bluish or greenish lustre which distinguishes the female of *E. Serina*:

and the white spot of the fore-wing cell is absent. *Beneath*, same as in the male.

This species is extremely abundant at Ega at the beginning of the dry season, settling on the ground in grassy places on the borders of the forest. It was also taken by Mr. Osbert Salvin in the interior of Guatemala.

108. *Eubagis Serina*, Fabricius.

♂. *Papilio Serina*, Fab. Syst. Ent. 497. 232.
*Eubagis Serina*, Hewits. Exot. Butt. Eub. f. 1.
♀. *Papilio Egœa*, Fab. Syst. Ent. 496. 231.

The female of this species is distinguishable, *above*, from that of *E. Glauce* and *E. Dyonis*, to which it otherwise bears a close resemblance, by the silky green lustre of the basal part of the wings. The male differs from that of *E. Dyonis* by its bluish-green lustre, *E. Dyonis* having a golden tinge; from *E. Glauce* (♂) it differs in the belt of the under side of the hind wing, which connects the ocelli, lacking the distinct blackish borders which distinguish *E. Glauce*.

*Eubagis Serina* is found in woods on the banks of the Tapajos, and also at St. Paulo, Upper Amazons. It is also an inhabitant of Surinam.

109. *Eubagis Onias*, Hewitson.

*Eubagis Onias*, Hewits. Exot. Butt. Eub. f. 13, 15, ♂; f. 14, ♀.

Upper and Lower Amazons, in sunny glades in the forest.

110. *Eubagis postverta*, Cramer.

♂. *Papilio postverta*, Cram. 254 c, d.
♀. —— *Mylitta*, Cram. 253 c, d.

In woods on the banks of the Tapajos; also Rio Janeiro, Surinam, and New Granada. The typical form of the species, as found in these countries, has both the ocelli of under side of hind wings circular in shape; further north, in Nicaragua and Guatemala, the apical ocellus is transversely oval or reniform, and has two plumbageous pupils.

111. *Eubagis Paulina*, n. sp. (Pl. XIV. fig. 3.)

♂. Expanse 1″ 10‴. Same form as *E. postverta*. *Above*, of a uniform silky-green hue, the marks of the underside not shining through. Outer border of fore wing black, very broad at the apex, but having there, on its inner edge, a deep, quadrate emargination; disk of wing clear of spots. Hind wing with a moderately broad, black border, of the same form as in *E. postverta*; there is also a distinct black spot near the anal angle. *Beneath*, very similar to *E. postverta*; fore wing the same, having two

oblique whitish stripes near the base (the posterior one crossed by a black streak), and four exterior spots. Outer margin greyish brown, with a plumbageous submarginal line. Hind wing whitish, with three rufous belts across the basal half (the two outer ones slightly divergent from costa to abdominal edge, and enclosing a greyish belt with plumbageous streaks). Outer limb grey, with two rufous-brown streaks, enclosing two large, round, black ocelli, with round plumbageous pupils and yellow irides; two black lunules, edged with plumbageous, near anal angle.

♀. Expanse 1″ 10‴. *Above*, precisely the same as in *E. postverta*, except that the anal ocellus has a round instead of a crescent-shaped plumbageous pupil. *Beneath*, the same as in the ♂ above described.

I found this species only in the neighbourhood of St. Paulo, Upper Amazons. It appears to be a local form of *E. postverta*, the type not being found in its company. As a local variety, however, it is well marked and constant. It is remarkable that such a modification of a species should occur in a district situated near the centre of the area of distribution of the type.

112. *Eubagis Perpetua*, n. sp. (Pl. XIV. fig. 5.)

♂. Expanse 1″ 10‴–2″ 2‴. Similar in form and general colour and markings to *E. postverta*. Wings, *above*, of the same hue of green, with spots of underside shining through; the outer border of the fore wing, however, is much broader, and has two deep, rounded emarginations on its inner edge. There is a curved black streak beyond the end of the cell, but no black spot on the disk. The hind wing, *above*, has a broadish black border, with a distinct inner limit, but without sinuation. There is also in some examples a round black spot near the anal angle. *Beneath*, the fore wing is tawny rufous, with five irregular white spots, namely, one, oblique, over the median nervure, a second, flexuous, across the hinder part of the disk to the hind margin, a third, elongate, near the middle of the costa, a fourth, subapical, broad, and elongated, and, lastly, a fifth, behind the middle of the outer border. There is a submarginal plumbageous line, and two lines of the same hue in the cell, the basal one almost circular and the other transverse, both partially edged with black. Hind wing very similar to that of *E. postverta*; but the ocelli are different: instead of having plumbageous pupils and yellow irides, they have black pupils with the outer sides plumbageous, and yellow edging on the inner sides only. The outer submarginal rufous line is also wanting, and the outer edge of the central belt is flexuous instead of straight.

This species was one of the rarest of the genus. I met with it only on the Upper Amazons, at Tunantins and St. Paulo.

113. *Eubagis Zenobia*, n. sp. (Pl. XIV. fig. 5.)

♂. Expanse 1″ 10‴. *Above*, deep black; a large spot at the base of the fore wing, and a small one at the base of the hind wing, silky green.

*Beneath*: fore wing brownish black, with plumbageous streaks; two short oblique belts near the base (the second crossed by a black streak) and five spots white, an oblong spot near the apex brownish white. Hind wing white, crossed by five brown lines—four over the basal half, and one submarginal; between the last mentioned and the preceding is a large dusky-brown patch tinged with silky blue, and having two round black ocelli with plumbageous pupils and reddish irides; there is also a black spot, edged with plumbageous, near the anal angle, and a submarginal interrupted plumbageous line.

Of this handsome and distinct species I obtained only one example. St. Paulo, Upper Amazons.

114. *Eubagis Arene*, Hübner.

*Dynamine Arene*, Hübn. Samml. Exot. Schmett.
*Nymphalis Johanna*, Godart, Encycl. Méthod. ix. 420. 221.

Thinned woods on the banks of the Tocantins and Tapajos; flying about flowering trees; rare.

115. *Eubagis Persis*, Hewitson.

*Eubagis Persis*, Hewits. Exot. Butt. Eub. f. 21, 22, ♂.

Found only at St. Paulo, Upper Amazons; flying about the streets of the village, and settling in muddy places at the edge of puddles.

Genus Timetes, (Tymetes) Boisduval, Règne Animal, ed. Crochard (1836).

Syn. *Megalura*, Blanchard, Anim. Artic. iii. p. 446 (1840).
*Timetes*, Doubleday & Hewits. Gen. Di. Lep. p. 262 (1850).

116. *Timetes Petreus*, Cramer.

*Papilio Petreus*, Cram. 87 D, E (1779).
—— *Thetys*, Fab. Ent. Syst. III. i. 77. 241 (1793).
—— —— (transformations), Stoll, pl. 2. f. 2.

A common insect in Tropical America. In open sunny places, gardens, plantations, and banks of streams; settling on flowers, and on the ground in moist situations.

117. *Timetes Chiron*, Fabricius.

*Papilio Chiron*, Fab. Syst. Ent. p. 452, n. 40 (1775).
—— *Marius*, Cramer, 200 D, E, ♂ (1782).
—— ——, Stoll, 30. f. 1, 1 *a*, ♀.

Also a common insect throughout the whole of Tropical America. In sunny openings in the forest, flying about the trees and on the

margins of streams, often congregating in countless flocks; flying rapidly, and settling in moist places.

### 118. *Timetes Berania*, Hewitson.

*Timetes Berania*, Hewits. Exot. Butt. Tim. f. 1, ♂ (not f. 2, which is a distinct species).

♀. *Above*, rich tawny brown; the black stripes same in number and position as in well-marked examples of the male, but they are broader and of a browner hue. *Beneath*, precisely the same as in the male.

This beautiful species is not found on the Lower Amazons. It is abundant on the upper river, and is also found in Peru and as far north as Guatemala, where Mr. Salvin found it in plenty. It frequents the moist margins of pools and streams at the beginning of the dry season. The female is very rare.

### 119. *Timetes Orsilochus*, Fabricius.

*Papilio Orsilochus*, Fab. Gen. Ins. Mant. p. 252 (1776).
—— *Cinna*, Cramer, 200 F, G (1782).

A common insect throughout the Amazons region; it does not appear, however, in such swarms as its congener, *T. Chiron*, and is chiefly found in sunny places in the forest, flying about and settling on trees. The female does not differ in colour or form from the male.

### 120. *Timetes heraldicus*, n. sp.

♂. Expanse 2″ 4‴. Similar in colours to *T. Iole* (Drury). Fore wing strongly falcated, the apex being prolonged into a narrow point, and the outer margin, immediately after the apex, strongly incurved and waved. Wings, *above*, rich deep brown, without blue gloss; basal half of the fore wing orange-tawny, silky, the outer edge of this colour straight and sharply defined. Basal part of the hind wing also orange-tawny, but its outer edge distinctly defined only near the costa, in the other part being gradually blended with the ground-colour of the wing. Anal angle of the hind wing very slightly emarginated, and the angles of the emargination not projecting. *Beneath*, scarcely different from *T. Iole*; lilacine-brown, with a few fine curved dusky streaks across the basal halves of the wings; across the disk is a broad belt of a paler brown hue, and succeeding this a belt of a much darker brown hue; towards the apex of fore wing and anal angle of hind wing are a few ashy spots, and in a line with these a row of blackish specks.

♀. Expanse 2″ 4‴. Wings of precisely similar form to those of the male. The colours, *above*, are paler and duller; the tawny basal parts of the wings are crossed by numerous black streaks, five of which cross the fore-wing cell. Towards the apex of fore wing is a row of three distinct white spots. The hind wing is almost wholly tawny-brown, crossed by

black streaks. *Beneath*, same as in the male, but more uniform in colour, and destitute of the paler and blacker belts.

This beautiful species was extremely rare; I saw only one example of it during three years' collecting in the neighbourhood of Ega, and only three or four at other stations on the Upper Amazons. It is quite distinct from the *T. Iole* of the West-India Islands and New Granada; but I am not quite sure whether it is different from the *T. Hermione* of Dr. Felder (Lep. Nov. Columbiæ, no. 97), as the describer does not mention the falcate form of the wings and the clear limitation of the basal spot. *T. Hermione* is recorded as inhabiting Ecuador, Peru, and the Upper Rio Negro.

121. *Timetes Chrethon*, Fabricius.

*Papilio Chrethon*, Fab. Gen. Ins. Mant. p. 252.

Upper Amazons, occurring sparingly in company with other species on the borders of the forest, and settling in muddy places. The species appears to vary in the width of the white belt: Fabricius describes it as "broad" in Surinam specimens; in Amazonian examples it is narrower than in *T. Orsilochus*; and specimens from Bolivia in the British Museum show a much reduced width. *T. Catulus* (Felder) from Ecuador seems to be a distinct but closely allied form.

122. *Timetes Egina*, n. sp. (Pl. X. fig. 1.)

♂. Expanse 2″ 2‴. *Above*, very similar to *T. Chiron*. Fore wing less produced at the apex; hind wing destitute of anal lobe. Wings, *above*, tawny brown; apical third of fore wing dark brown, with the colour indistinctly limited on the inner side, and having a curved row of three dingy-white spots: they are crossed by numerous dark-brown stripes,—namely, three, slender, over the fore-wing cell, the outermost of which extends to the hind wing (and is there followed by another shorter line); three, broad, tapering from the fore-wing costa to the hind-wing anal margin; and two more, slender and submarginal, continuous only on the hind wing, being lost in the apical brown colour of the fore wing. Near the anal angle of the hind wing are three brown ocelli with black pupils. The anal angle is emarginated, and the lower angle of the emargination is tipped with red. *Beneath*, almost identical with *T. Chrethon*, being lilacine-white, with numerous tawny streaks, one of which, straighter and thicker than the rest, crosses both wings from the middle of the fore-wing costa to near the anal angle.

♀. Expanse 2″ 2‴. Similar to the male, but paler in hue; apical part of the fore wing with a row of five rather large white spots, the third of which lies nearer the base than the other four. Towards the apex are also two much smaller white spots. *Beneath*, same as in the male.

Upper Amazons; rare. In company with *T. Chrethon*.

123. *Timetes Tutelina*, Hewitson.

*Timetes Tutelina*, Hewits. Exot. Butt. Tim. f. 5, ♂.

This elegant species was abundant at St. Paulo, on the Upper Amazons, settling on the sandy margins of brooks in the heart of the forest. I saw it once also at Ega.

124. *Timetes Norica*, Hewitson.

*Timetes Norica*, Hewits. Exot. Butt. Tim. f. 3, ♂, f. 4, ♀.

Ega, Upper Amazons. Recorded by Dr. Felder as found also on the Upper Rio Negro.

Genus Heterochroa (Boisd.).

Westwood, in Doubld. & Hewits. Gen. p. 276.

This genus is the representative of *Limenitis* of the Old World and north temperate parts of the New World. The species have the same habits and a similar bold, sailing manner of flight. There is no structural difference between them; but the different style of coloration presented by the two groups warrants their generic separation. About forty-seven species of *Heterochroa* have been described, and about thirty-two of *Limenitis*. The only species which seem intermediate between the two genera are *H. Bredowii* and *H. Lorquinii*, both natives of California.

125. *Heterochroa Thoasa*, Hewitson.

*Heterochroa Thoasa*, Hewits. Annals & Mag. Nat. Hist. vol. vi. n. s. p. 436, pl. xi. f. 6.

A rare and beautiful little species, approaching in its colours the *Pyrrhogyra*. I met with it only on the Lower Amazons—at Pará, on the banks of the Tapajos, and at Villa Nova. Like all the other members of the genus, it is a forest insect, emerging only in sunny places to settle on moist places on the ground, whence, if disturbed, it ascends rapidly to the summit of trees.

126. *Heterochroa Celerio*, Bates. (Pl. XIII*. fig. 4.)

*Papilio Iphicla*, Cramer, 188 E, F (nec *Iphicla* Linn. et Clerck.).

*Heterochroa Celerio*, Bates, Entomologist's Monthly Mag. vol. i. p. 127.

This species was described, in the place quoted, from examples captured by Mr. Salvin in Guatemala. It is found sparingly throughout the Amazons region, and probably in most other parts of Tropical America. The nearest allied species described is *H. Serpa* of Boisduval, from which it differs in the green tinge of the pale belt of the

wings and in other minor points. Since describing it, I have carefully compared my Amazonian specimens with the figure given by Cramer as representing the *Papilio Iphicla* of Linnæus, and find them to agree very closely, except that Cramer's figure does not give sufficient depth to the green tinge of the pale belt of the wings. Cramer mistook his insect for the Linnean *Iphicla*, which is represented in Clerck's 'Icones,' and is quite a distinct species.

127. *Heterochroa Paraëna*, n. sp.

♀. Expanse 2″ 9‴. Similar, *above*, to *H. Serpa*, Boisd. (Species Gén. pl. 8. f. 4. Shape of the wings the same, and white belt of the same hue; the latter, however, extends only to the second branch of the median nervure, and the inner side of the orange spot covers most of the space between the second and third median branches, which in *H. Serpa* is occupied by the termination of the white belt. The cell of the fore wing has a red belt, and a streak of the same colour at the base. The hind wing has three blackish stripes along the brown outer limb, the inner one, or that which borders the white belt, being of great width—four times as wide as the middle stripe. *Beneath*, the characteristic marks of the cell are the same as in *H. Serpa* and *H. Celerio*, except that there is no red belt across the end of the cell. The black streak which lies beyond the cell is very broad, and encloses two white spots. The outer border of the fore wing has indistinct dingy-white spots, and a thin, dusky submarginal line, but there are no longitudinal dusky streaks between the nervures. Hind wing of the same general pattern as in *H. Serpa* and *H. Celerio*; the rufous belts are of a darker rufous hue, and their black edgings are broad, especially the inner edging of the outer belt, which is of great width. The outer limb of the wing is greyish white, and the nervures not tinged with black.

This species occurred at Pará only.

128. *Heterochroa Iphicla*, Linnæus.

*Papilio Iphicla*, Linn. Syst. Nat. ii. 784, n. 181.
—— ——, Clerck, Icones, t. 41. f. 3.

A common insect on the banks of the Upper Amazons and the Tapajos, settling in moist places on the banks of streams; also seen flying about the summits of trees in sunny parts of the forest.

129. *Heterochoa Basilea*, Cramer.

*Papilio Basilea*, Cram. 188 D.

This species is very closely allied to *H. Iphicla* of Linnæus. It differs, on the under side, in the grey markings at the end of the fore-wing cell consisting of a single row of three wedge-shaped

spots lying lengthwise, instead of forming a double row of spots, and in the arcuated rufous stripe on the inner side of the central stripe being simple instead of consisting of two rufous lines. The fulvous spot of the fore wing differs in shape from that of *H. Iphicla*, being curved outwards. In the only example I have before me it is followed by a small fulvous spot near the apex.

Ega*.

130. *Heterochroa Lerna*, Hewitson.

*Heterochroa Lerna*, Hewits. Ann. & Mag. Nat. Hist. vol. xx. p. 259, pl. 20. f. 4.

This fine species has the form and strength of thorax of an *Apatura*. I found it sparingly on the Upper Amazons, in sunny places in the forest.

131. *Heterochroa Erotia*, Hewitson.

*Heterochroa Erotia*, Hewits. Ann. & Mag. Nat. Hist. vol. xx. p. 258, pl. 20. f. 3.

A common insect in the forest on the Upper and Lower Amazons. I have seen specimens from New Granada which do not differ from Amazonian examples.

132. *Heterochroa Nea*, Hewitson.

*Heterochroa Nea*, Hewits. Ann. & Mag. Nat. Hist. vol. xx. pl. 20. f. 1.

This species has hitherto been found only at Pará.

133. *Heterochroa Melona*, Hewitson.

*Heterochroa Melona*, Hewits. Ann. & Mag. Nat. Hist. vol. xx. pl. 20. f. 2.

Banks of Lower Amazons, in thinned woods, in company with *H. Cytherea*.

* Another allied form belonging to the *Iphicla* group of *Heterochroa* is the following:—

*Heterochroa Basiloides* (Boisd. MS.).

♀. Expanse 2″ 8‴. Similar on the upper side to *H. Iphicla*. White belt less green in hue, and extending on the fore wing to the lower radial nervure, followed by a white spot lying between the lower and the upper radials. The fulvous spot is similar in shape to that of *H. Iphicla*, but it is not prolonged inferiorly. *Beneath*, the fore wing does not differ from that of *H. Iphicla*, except in the extension of the white belt, and the absence of the dusky-brown streak between the white belt and the submarginal lines. The hind wing, *beneath*, differs from *H. Iphicla* and all the allied forms in having a small spot at the end of the cell, between the central rufous belt and the arcuated streak: both the arcuated streak and the spot are formed of dark rufous lines.

Mexico.

134. *Heterochroa Cocala*, Cramer.

*Papilio Cocala*, Cram. 242 F, G.

A common species throughout the Amazons region, on the borders of broad paths in the forest, flying over the lower trees.

135. *Heterochroa Plesaure*, Hübner.

*Heterochroa Plesaure*, Hübn. Zuträge, f. 231, 2.
*Nymphalis Phliassa*, Godart, Enc. Méth. ix. p. 373, n. 78.

Also a common species in the forest, especially at Pará and on the banks of the Lower Amazons.

136. *Heterochroa Cytherea*, Linnæus.

*Papilio Cytherea*, Linn. Syst. Nat. ii. p. 785, n. 210.
—— ——, Clerck, Icones, t. 39. f. 3.
—— *Elea*, Cramer, 242 D, E.

The most widely distributed and abundant species of the genus in Tropical America. It occurs throughout the year; flying over bushes and the lower trees in sunny places in the forest and in thinned woods. The species which Cramer mistook for the *H. Cytherea* of Linnæus, and which he figured in his plate 276 C, D, is a distinct species. It appears not to be the same as *H. Iphicla* of Linnæus, although Westwood, in Doubleday and Hewitson's 'Genera,' places it as a synonym.

137. *Heterochroa Mesentina*, Cramer.

*Papilio Mesentina*, Cramer, 162 B, C, ♂ (1779).
—— *Mesenteria*, Fab. Sp. Ins. ii. p. 105 (1781).

The female of this handsome species, which is much rarer than the male, differs from its partner, besides its paler colour, in the presence of a dingy-white belt on the hind wing, crossing the end of the cell, and not reaching the abdominal border. The males resort to muddy places on the margins of streams. The species is widely distributed in the Amazons region, and is found also at Surinam.

Genus Apatura, Fabricius and Authors.

138. *Apatura Agathina*, Cramer.

*Papilio Agathina*, Cram. 167 E, F, ♂.
—— *Agathina*, Hübner, Zutr. f. 765, 766, ♂.

The female of this species resembles the insect figured by Hübner (Zutr. f. 617, 618) as *Doxocopa Marse*, which, according to Mr. Westwood (Dbld. & Hewits. Gen.), is the female of *Apatura Vacuna*

of South Brazil. I obtained two specimens only, and these differ in the colour of the broad belt of the fore wing; in one example this is white, and in the other tawny orange. They both agree in the markings of the under side, and these leave no doubt as to their belonging to this species. The characteristic marks crossing the cell of the fore wing are sure guides in the determination, *A. Agathina*, in both sexes, having the cell of a reddish hue, crossed by four black stripes, the last lying a little beyond its termination. The males are common on the Upper Amazons, but the females are extremely rare.

139. *Apatura Selina*, n. sp.

♂. Expanse 2″ 4‴. Fore-wing apex moderately produced and broadly truncate, outer margin moderately incurved and dentate; hind wing with the outer margin scarcely rounded, dentate, produced into a dentiform lobe at the first median branch. Wings, *above*, dark brown, crossed by a discoidal common white belt, which on the fore wing passes a little beyond the median nervure; nearer the apex of the fore wing lies a tawny-orange spot, distant from the white belt and touching the costa, and sinuate on its outer edge; outer limb of the wings traversed by two black lines; at the anal angle of the hind wing is a reddish spot, and, near it, the submarginal black line is bordered with grey: cell of fore wing crossed by two black lines. Costa of fore wing, near the apex, narrowly edged with whitish. *Beneath*, the fore wing is pallid, with similar marks to those above, and in addition there is an oblique, waved, black streak crossing the wing beyond the cell; the white belt is edged outwardly with dusky. The hind wing is silvery, with the white belt opake.

♀. Expanse 2″ 8‴. Same as the male, except that the white belt is broader and, on the fore wing, tawny-orange, except near the hind margin.

This species resembles *A. Laura* of Drury (Ill. ii. pl. 17. f. 5, 6); but it is destitute of blue gloss above, and the apex of the fore wing is much less produced and more broadly truncate. It is more nearly allied to *A. Linda* of Felder (Faun. Lep. R. Negro, Sup. no. 119); but in the male of this species the discoidal belt of the fore wing is tawny-orange, and continuous with the subapical spot of the same hue. It may prove that we have here to deal with a species subject to great local modification, especially with regard to the colour and extent of the discoidal belt of the fore wing. I have a male example from South Brazil (30° S. lat.) which agrees with Amazonian specimens, except that it has this belt fulvous-coloured on the fore wing, but not continuous with the subapical spot as in *A. Linda*. *A. Selina* was a common insect on the Upper Amazons, and all the specimens I have examined are conformable to the description given above.

Genus Aganisthos, Boisduval et Leconte, Icon. Lép. Amér. Sept.

140. *Aganisthos Orion*, Fabricius.

*Papilio Orion*, Fab. Syst. Ent. p. 485. 185 (1775).
—— *Danaë*, Cramer, 84 A, B (1779).

A widely distributed insect in Tropical and Subtropical America, being found from Florida to South Brazil. As might be supposed from the great volume of the thorax, it is an insect of extremely rapid flight. I have seen it only in open, sunny places in the neighbourhood of towns.

141. *Aganisthos Cadmus*, Cramer.

*Papilio Cadmus*, Cram. 22 A, B (1779).
—— *Pherecydes*, Cram. 330 A, B.
—— *Acheronta*, Fabr. Ent. Syst. III. i. 76. 239 (1793).

This species was placed by Westwood in the genus *Megistanis*. In all essential points of structure it agrees with *Aganisthos*, differing only in the possession of a tail or slender pointed lobe on the outer border of the hind wing.

Genus Prepona (Boisd.),
Westwood, in Dbldy. & Hewits. Gen. p. 299.

142. *Prepona Demodice*, Godart.

*Nymphalis Demodice*, Godt. Enc. Méth. ix. 408. 193.
*Prepona Demodice*, Boisd. Species Gén. pl. 7. f. 13.
*Papilio Demophon* ♀, Linn., Cramer, 158 E.
—— *Laërtes*, Hübn. Samml. Exot. Schm.

This species is widely distributed in the Amazons valley, but rare. Like all the rest of the genus, it is a strong and swift flier, and has the habit of settling on projecting naked branches of trees, maintaining its place boldly, and therefore easily captured.

143. *Prepona Eugenes*, n. sp.

♂. Expanse 3″ 8‴. Closely allied to *P. Demodice*. Fore wing not so much produced at the apex, and outer border much less strongly incurved: blue belt broad, and terminating at the median nervure of the fore wing; but the blue spots existing near the costa in the typical *P. Demodice* are entirely wanting. Abdominal border of the males furnished with a stellate fascicle of pale hairs, as in all the species of this section. *Beneath*, *P. Eugenes* differs from *P. Demodice* in the ground-colour being throughout of an ochreous or pale-brownish tawny hue, ornamented with shining ochrey-white spots, in the following order—one at the end of each cell, and several placed irregularly in a row from the costa of the fore wing across the disks of both wings, nearly to the abdominal border of the hind

wing; the bases of the costal borders of both wings are also silky ochreous white. The wings have numerous black spots and crooked lines similar to those of *P. Demodice*, but much more angular; the hind wing has two large ocelli and a space between them, and the disk speckled with brown on a pale ground.

Of this species I have two examples, exactly similar—one taken at Pará, and one at St. Paulo, on the Upper Amazons*.

### 144. *Prepona Pheridamas*, Cramer.

*Papilio Pheridamas*, Cram. 158 A, B.

This elegant species belongs to the section the males of which have a stellate fascicle of pale hairs on the abdominal border of the hind wings. It is generally distributed throughout the Amazons region, but not common anywhere.

### 145. *Prepona Meander*, Cramer.

*Papilio Meander*, Cramer, 12 A, B.

The insect figured by Cramer, in the place here quoted, seems to me to belong to a different species from the *P. Amphimachus* of Fabricius, with which it has been considered by many authors as identical. In *P. Meander* the outer halves of the wings beneath are dark brown, with a minute white subcostal spot on the hind wings. The Fabrician phrases, "alæ . . . subtus . . . postice obscure cinereæ; posticis puncto majori albicante et septem parvis brunneis pupilla alba," does not suit the Cramerian species, but applies exactly to the one to which I confine the name *Amphimachus*. *P. Meander* differs

* *Prepona Pylene*, Hewitson (Exot. Butt. Prep. f. 3. 5), is another species of the *Demodice* group, and the following makes a fifth form of the same subsection of the genus:—

*Prepona Gnorima.*

♂. Same size and form as *P. Demodice*, the fore-wing apex being greatly produced, as in that species, and the outer margin strongly incurved. Blue belt only one-half the width of that of *P. Demodice*; costal spots absent, but inner side of the belt of fore wing glossed with rich dark blue extending to the costa. The ground-colour of the wings is much lighter than in *P. Demodice*; consequently the hind-wing ocelli shine through to the upper surface. *Beneath*, similar to *P. Demodice*, the basal halves of the wings being whitish, and the outer halves brown; there is, however, no tawny patch on the fore wing, and the angulated black line which crosses the fore wing beyond the cell is not continuous, and the separate black lines of which it is composed have each on their external sides a whitish spot. The irregularly curved black line towards the outer margin of the same wing is connected with the exterior row of oval rings, so as to form with them a single line with loop-like projections.

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from *P. Amphimachus* constantly in the much darker hue of the outer halves of the wings beneath, and in the presence of a paler outer border to the fore wing, separated from the dark-brown hue by a line nearly parallel to the margin. In the species which I take to be *P. Amphimachus* the outer halves of the wings, beneath, are of a much lighter brown hue, and there is no paler border to the fore wing, but, instead of this, a dusky line strongly angular towards the apex.

Upper and Lower Amazons; not very common.

146. *Prepona Amphimachus*, Fabricius.

*Papilio Amphimachus*, Fabr. Syst. Ent. p. 457, n. 59.

This is a very common species throughout the Amazons region. The larva, which resembles much in form that of *Apatura Iris*, is of a uniform olive-green colour. The pupa is broad, smooth, and very protuberant in the middle of the dorsal part of the abdomen.

147. *Prepona Demophon*, Linnæus.

*Papilio Demophon*, Linn. Syst. Nat. ii. 753. 47.
—— ——, Clerck, Icones, t. 29. f. 3, 4.
—— *Sisyphus*, Cramer, 158 c.
—— *Thalpius*, Hübn. Samml. Exot. Schm.

A common insect throughout the Amazons region.

148. *Prepona Amphitoë*, Godart.

*Nymphalis Amphitoë*, Godt. Enc. Méth. ix. 407. 190.

Closely allied to *P. Demophon*, but different in the pale-ashy hue of the underside and the form of the transverse black line, which consists of short lines, each of which is angulated in the interspaces between the nervures.

Generally distributed in the Amazons region, but much less common than *P. Demophon*.

149. *Prepona Lycomedes*, Cramer.

*Papilio Lycomedes*, Cramer, 158 D.

Rare; Ega, Upper Amazons.

Genus Agrias, Dbldy. Proc. Zool. Soc. 1848, p. 46.

150. *Agrias Sardanapalus*, Bates.

*Agrias Sardanapalus*, Bates, Proc. Entom. Soc. Lond. April 1860.
—— ——, Hewitson, Exot. Butt. Agr. f. 4.

This magnificent insect is one of the most richly coloured of the

whole order of Lepidoptera. I met with it at different points on the Upper Amazons; always in sunny openings in the primeval forests, in hot, gleamy weather between the dry and the wet seasons. Its evolutions on the wing are similar to those of the *Preponæ*, and it is utterly impossible to capture it except when settled. The first examples I saw were attracted by a sweet sap exuding from the trunk of a felled tree, where a large number of Cetoniadæ Coleoptera were daily congregated. A dense crowd of other handsome butterflies was assembled on the same tree—*Preponæ*, *Paphiæ*, *Siderones*, *Gynecia*, *Ectinæ*, and others; but the frequent shifting of the eager creatures had rendered the gorgeous *Agriades* unusually wary, so that I was unable to capture them. When found alone, settled on ordure in the pathway, they were less difficult to secure; but it was only on three or four occasions, during as many years, that I was so lucky as to find the species in such situations. *Agrias Sardanapalus* is closely related to *A. Claudia*, a rare species inhabiting Southern Brazil. The two, indeed, may be considered as local forms of one and the same stock; the Amazonian variety, however, surpasses its South Brazilian cousin in splendour.

151. *Agrias Phalcidon*, Hewitson.

*Agrias Phalcidon*, Hewits. Exot. Butt. Agrias, f. 1, 2.

I found this species only in one locality—namely, at Villa Nova, on the Lower Amazons. In the rear of this village the forest is traversed by broad alleys, overarched only at rare intervals by trees. The sides of the alleys form lofty walls of varied greenery, the favourite resort of many handsome species. *Agrias Phalcidon* delights to settle on projecting branches, at a height of from 15 to 20 feet from the ground; and to obtain it I was obliged to lash my net to a long pole. When settled it was easy to capture, and so in the course of three or four months I obtained a fine series of examples. In colour it resembles much *Callithea Leprieurii*, a common insect in the same locality.

152. *Agrias Pericles*, Bates.

*Agrias Pericles*, Bates, Proc. Ent. Soc. London, April 1860.

—— ——, Hewitson, Exot. Butt. Agr. f. 3.

One example only, taken at Villa Nova, in company with *A. Phalcidon*. It differs from this species only in the colours of the upper surface of the wings.

153. *Agrias Hewitsonius*, Bates.

*Agrias Hewitsonius*, Bates, Proc. Ent. Soc. Lond. April 1860.
—— ——, Hewitson, Exot. Butt. Agr. f. 1, 2.

Ega, Upper Amazons; very rare. I took both sexes of this very distinct species. The female does not differ in colours from the male, and both bear a striking resemblance to *Callithea Markii* and *C. Batesii* of the same locality.

Genus Megistanis (Boisd.),
Westwood, in Dbld. & Hewits. Gen. p. 311.

This genus is the nearest approach found in the New World to *Charaxes* of the Old. It differs strikingly in the subcostal neuration of the anterior wing.

154. *Megistanis Bœotus* (Boisd.), Westwood.

*Megistanis Bœotus*, Westwood, in Dbldy. & Hewits. Gen. pl. 48. f. 2.

Very abundant on the Upper Amazons, from Ega westward to the slopes of the Andes. It makes its appearance at the commencement of the dry season in June, on fine days flying in numbers about the moist sediment left by the retreating waters of the river. Its flight is excessively rapid and wild, and when settled it is very wary and difficult to approach.

155. *Megistanis Deucalion*, Bates.

*Megistanis Deucalion* (Bates), Felder, Lepid. Fragmente, p. 58.

This species is the constant companion of *M. Bœotus* on the Upper Amazons, occurring in the same places and in the same abundance. I think there can be no doubt of its being a distinct species. The females of both are unknown; but this is scarcely a matter for surprise, as the same is the case with many species of *Catagramma* and other genera of similar modes of life.

Genus Hypna (Hübner),
Westwood, in Dbld. & Hewits. Gen. p. 314.

156. *Hypna Clytemnestra*, Cramer.

*Papilio Clytemnestra*, Cramer, 137 A, B (1779).
—— ——, Fabr. Sp. Ins. ii. 93. 406 (1781).

Generally distributed throughout the Amazons valley. It flies on the borders of the forest, settling on projecting branches of trees.

Genus Paphia (Fab.),
Westwood, in Dbld. & Hewits. Gen. p. 317.

157. *Paphia Eribotes*, Fabricius.

*Papilio Eribotes*, Fabricius, Syst. Ent. 484. 183 (1775).
—— *Leonida*, Cramer, 388 E, F (?) (1782).

If the figure of Cramer, quoted above, is intended to represent the species which passes under the name of *Eribotes*, Fab., and agrees with his description, it is a very bad one; the other figure given on the same plate (f. C, D), as being the male of the same species, represents, probably, a different one, but it is so bad as to be indeterminable. Godart, from his description, confounds two distinct species under the head of *N. Eribotes*. The true *Eribotes* is a common insect in the woods of Pará. The male (the sex described by Fabr.) is of a rusty orange-colour, with the bases of both wings glossy violet-blue. The outer margin of this basal colour on the fore wing is oblique, and far from being continuous with that of the hind wing (as represented in Cramer), and on the hind wing the colour continues to near the anal angle. The fore wing has a blackish patch on the costa a little beyond the cell, and the costa and apex are rather broadly black. The fore wing is falcate, the apex being a little produced and pointed, and the outer margin incurved from the apex to beyond the middle. The hind edge is deeply excised.

♀. The female is of a dull slaty-black hue, with the base of the wings broadly tinged with light blue; towards the apex of the fore wing there is a short, waved costal belt of a dingy-whitish hue. It differs from the same sex of the allied species in having the outer margin of the fore wing slightly incurved, and in the under surface having several rather distinct patches of a blackish hue.

158. *Paphia Porphyrio*, n. sp.

♂. Expanse 2″ 6‴. Fore wing very moderately falcate, and outer border very slightly incurved; hind margin with a deep, semicircular emargination: hind wing with a linear or slightly pointed tail. Wings, *above*, rusty brown, with their bases tinged with bluish to an indeterminate extent; most examples have also an indistinct, oblique, twin costal spot, of a bluish colour, towards the apex. Hind wing with a minute ocellus at the base of the tail. *Beneath*, light brownish ferruginous, sprinkled with pearly atoms, some of which unite and form an oblique stripe from the fore-wing apex, and two shorter transverse ones near the middle and hind border of the hind wing. The hind wing, besides the ocellus at the base of the tail, has two or three other very minute ocelli.

♀. Fore wing with the apex acute, but the outer margin not at all incurved. Both wings, *above*, rusty brown, with the base bluish; costal

subapical spot of fore wing forming a short belt of a greyish hue. Tails of hind wing broad and subspatulate. *Beneath*, pale greyish, irrorated with dusky; a row of small submarginal ocelli on the hind wings.

This species is closely allied to *P. Morvus* of Fabricius, but it is distinguished by the ferruginous hue of the limb of the wings, above, and of the whole under surface. It resembles much *P. Otrere* of Hübner. It is a very common species in the woods of Pará and the Lower Amazons. I have examined a great number of specimens, and find them to agree pretty closely with each other and the description here given. I have not much doubt that this is the species contemplated by Cramer in his figure of *P. Leonida* given in pl. 388. fig. c, d; but the fore wing is represented as falcate to a very high degree—a character which our species does not present; it is therefore unadvisable to apply Cramer's name to the species.

159. *Paphia Morvus*, Fabricius.

♂. *Papilio Morvus*, Fab. Syst. Ent. 484. 184 (1775).
—— ——, Fab. Syst. Ent. III. i. 73. 227.
—— *Arachne*, Cramer, 48 A, B (?) (1779).
♀. —— *Laërtes*, Cramer, 73 C, D (1779).

This species agrees very well in colours with the figure given by Cramer; but it differs in having the fore-wing inner margin deeply emarginate (a character given in the Fabrician diagnosis), the emargination in the Cramerian figure being very slight. The wings in the male are, above, deep bluish black, with a rather well-limited blue basal spot, especially in the fore wing. The fore wing is moderately falcate, the emargination is rather shallower than in *P. Porphyrio*, and the tails are sublinear and pointed. *Beneath*, the wings are of a glossy dark-brown hue, sprinkled with whitish atoms, and streaked as in *P. Porphyrio*.

This is also a very common species in various parts of the Lower and Upper Amazons. It varies considerably in the number and size of the subapical blue spots of the fore wing. *P. Iphis* (Latr.), with which Godart confounded it, is distinguished by the spatulate form of the tails in the males.

160. *Paphia Basilia*, Cramer.

*Papilio Basilia*, Cramer, 329 C, D.

Upper Amazons, at St. Paulo; rare.

The fore-wing hind margin is slightly emarginated, and the species has many points of resemblance to *P. Morvus*, notwithstanding the minute size of the tails.

161. *Paphia Odilia*, Cramer.

*Papilio Odilia*, Cramer, 329 c, d.

Upper Amazons, Ega, and St. Paulo; rare.

162. *Paphia Leuctra*, Felder.

*Nymphalis Leuctra*, Feld. Lep. R. Negro, Sup. no. 134.

Ega and St. Paulo, Upper Amazons; two examples only. Dr. Felder's unique example of this peculiar species was received from the Upper Rio Negro.

163. *Paphia Glauce*, Bates. (Pl. XIII*. fig. 2.)

*Nymphalis Glauce* (Bates), Felder, Lep. R. Negro, Sup. no. 132.

In this species there is no trace of emargination on the hind margin of the fore wing. The base of the wings and the spots are of a glossy greenish-leaden hue.

Common at St. Paulo, Upper Amazons.

164. *Paphia Glaucone*, Felder.

*Nymphalis Glaucone*, Feld. Lep. R. Negro, Sup. no. 133.

Intermediate in colours, both above and beneath, between *P. Morvus* and *P. Glauce*. One example, St. Paulo.

165. *Paphia Phidile*, Hübner.

*P. Phidile*, Hübn. Zutr. f. 905–6.

I found this species only at Cametá, on the Tocantins: it is a well-known South Brazilian insect.

166. *Paphia Erythema*, n. sp.

♂. Expanse 2″ 4‴. Fore wing pointed; outer margin nearly straight or scarce perceptibly incurved; hind margin simple; hind wing tailless, a minute point indicating the situation of the tail. Wings, *above*, orange-tawny, with a rich purple gloss in certain lights; fore wing with the outer third black, the inner edge of the black colour forming a regular curve; in the middle of the apical part is a short orange-tawny belt. Hind wing rather darker and more purple in hue, with two blackish streaks near the middle of the costa, and a dusky outer limb. *Beneath*, very similar to *P. Phidile*, being pale tawny-ferruginous, minutely irrorated with rusty brown, and having a few obscure transverse streaks alternately darker and lighter on the hind wing; the latter has a row of minute ocelli.

♀. Expanse 2″ 9‴. Wings of the same shape as in the male, except that the hind wing has a rather long spatulate tail, the apex of which is

dilated obliquely outwards. The colours are the same; but the upper side has no purple gloss, and the irroration beneath is much coarser.

Upper Amazons, at St. Paulo; very rare.

Genus Siderone.

167. *Siderone Marthesia*, Cramer.

*Papilio Marthesia*, Cramer, 191 A, B, ♀.

Cramer's figure of *Papilio Marthesia* is evidently made from an imperfect specimen, in which a great part of the hind wing was torn; for it does not represent the deep emargination of the abdominal apical margin, and the direction and colour of the row of spots are wrong; the line of spots in perfect examples bends towards the anal angle, and the colour is bluish. I found two examples near Santarem, and believe the insect to be the female of a fine scarlet male resembling the well-known *S. Ide*. The following is a description of the male:—

♂. Expanse 3″. Closely resembling in form and colours *S. Ide* (Fabr.). Hind wing less rounded outwards, and apex of fore wing destitute of tawny spot. *Above*, deep rich black; fore wing with a basal spot and submedian belt, and hind wing with a discoidal stripe a little beyond the middle, rich scarlet; anal margin of the hind wing, and a curved, submarginal row of spots, bluish grey. *Beneath*, the same as in the female (Cramer, fig. B); fore wing rather darker, and clouded with rufous towards the base.

Ega, Upper Amazons. I have seen specimens also from Cayenne in Dr. Boisduval's Collection.

168. *Siderone Mars*, Bates.

*Siderone Mars*, Bates, Proc. Ent. Soc. Lond. 1860.
—— ——, Hewitson, Exot. Butt. Sid. f. 3, 4.

I took one example only of this superb species. St. Paulo, Upper Amazons.

169. *Siderone Isidora*, Cramer.

*Papilio Isidora*, Cram. 235 A, B, E, F (♂ ♀).
—— *Itys*, Cram. 119 F, G (var. ♀).

Generally distributed throughout the Amazons region, in thinned parts of the forest. Both sexes appear to be very unstable in the form of the wings (degree of falcation, &c.) and in markings.

170. *Siderone Zethus*, Westwood.

*Siderone Zethys*, Westwood, Dbld. & Hewits. Gen. p. 321, *note*.

Pará. This seems to be distinct from *S. Isidora*, being smaller,

and having the fore wings, underneath, in the male dark tawny rufous, coarsely speckled with dark brown.

Genus Protogonius (Hübn.),
Westwood in Dbld. & Hewits. Gen. D. Lep. p. 313.

171. *Protogonius Fabius*, Cramer.

*Papilio Fabius*, Cram. 90 c, d (1779).
—— *Hippona*, Fab. Ent. Syst. III. i. 180. 559 (1793).

Similar in its habits to *Hypna*. Found flying near the borders of the forest, and settling on extended branches with its wings closed perpendicularly.

Group Morphitæ.

Genus Morpho (Fab.),
Westw. in Dbld. & Hewits. Gen. p. 337.

172. *Morpho Hecuba*.

*Papilio Hecuba*, Linn. Mant. 534.
—— ——, Cramer, 217 a, b.

I saw many examples of this species at Obydos, on the Guiana side of the Lower Amazons, sailing at a great height across sunny spaces between the tree-tops in the forest, and consequently unattainable during the short time I spent at the place. It is a well-known Guiana species, being found at Surinam and Demerara.

173. *Morpho Cisseis*, Bates.

*Morpho Cisseis* (Bates), Felder, Lep. Frag. p. 59, t. 11. f. 1 (1860).
—— *Egyptus*, E. Deyrolle, Ann. Soc. Ent. Fr. 1860, p. 210 (1860).

This grand species takes the place of *M. Hecuba* on the southern bank of the Amazons. I captured many specimens at Villa Nova and Ega, at both which places it was abundant during nearly the whole year. It has the same habits as *M. Hecuba*.

174. *Morpho Telemachus*, Cramer.

*Papilio Telemachus*, Cram. 373 a, b.

At Obydos and Manaos, on the Rio Negro; also at Surinam. Both sexes are of a greyish hue in the centre of the wing.

175. *Morpho Menelaus*, Linnæus.

*Papilio Menelaus*, Linn. Mus. Lud. Ulr. p. 200, ♂.
—— ——, Clerck, Icones, t. 21. f. 1.
—— ——, Cramer, 21 a, b.

*Papilio Nestor*, Linn. S. N. ii. 752. n. 40, ♀.
—— ——, Cram. 19 A, B.

A very common insect in the forests of Pará and the Lower Amazons, as far as the mouth of the Madeira. It has a low flight, moving quickly along the alleys cut through the moist woods, and settling on leaves or on the ground where fruit has fallen.

176. *Morpho Nestira*, Hübner.

*P. Nestira*, Hübn. Samml. exot. Schmett. ♂.

This is distinguished from *M. Menelaus* by the broadish black border to the fore wings in the male, and the black base of the wings in the female. It is a local form of the same stock, and entirely replaces *M. Menelaus* in the forests of the Upper Amazons, where it is very abundant.

177. *Morpho Achilles*, Linnæus.

*Papilio Achilles*, Linn. Mus. Lud. Ulr. p. 211.
—— ——, Clerck, Icones, t. 24. f. 3, 4.
*Morpho Achilles*, Guenée, Ann. Soc. Ent. Fr. 1859, p. 369.
*Papilio Helenor*, Cramer, 86 A, B.
—— ——, Cramer, 373 C (aberration).

Still more common than *M. Menelaus*, and found everywhere in the forests of the Amazons, and at all seasons. It has similar habits to those of *M. Menelaus*. A few examples occurred near Pará, in which the blue colour extended to the base of the wings, so that they were scarcely distinguishable from the local form *M. Helenor* (Herbst & Guenée) of Southern Brazil.

178. *Morpho Deidamia*, Hübner.

*Morpho Deidamia*, Hübner, Verzeichniss bekannt. Schmett.
—— ——, Guenée, Ann. Soc. Ent. Fr. 1859, p. 372.
*Papilio Achilles*, Cramer, 27 A, B, 28 A.

I met with this elegant species only at Pará, where it was rare. The female agrees with the male in colours; and in both the base of the wings is blue, although of a darker shade than on the disk. The habits and mode of flight are the same as in *M. Menelaus* and *M. Achilles*.

179. *Morpho Neoptolemus*, n. sp.

Similar to *M. Deidamia*. Fore wing less produced, and pointed at the apex. The under side is the same, with the exception that the anal ocellus is geminated, there being two black pupils with white centre points, surrounded by the common yellow iris. The upper side differs in the basal

third of the fore wing and the whole abdominal limb of the hind wing being deep black in both sexes.

This is a local form of the same stock as *M. Deidamia*, entirely replacing the latter form in the western parts of the Amazons valley, beginning at Villa Nova, near the mouth of the Madeira. In my own collection and that of the British Museum.

180. *Morpho Uraneis*, n. sp.

♂. Expanse 5″. Fore wing with the costa strongly arched, apex pointed, outer margin slightly and regularly incurved, hind angle distinct but obtuse: hind wing regularly rounded outwards, and not produced at the anal angle, abdominal edge straight. *Above*, of a pale satiny or silvery blue, with the apex of the fore wing black, the black part deeply trisinuate on its inner edge; two whitish spots on the costa beyond the cell of the fore wing: hind wing with two very narrow black spots at the termination of the abdominal nervure and the first median branch. *Beneath*, pale tawny buff, with several transverse whitish belts, two of which, broader and more distinct than the rest, cross the cells of both wings. Fore wing with three, and hind wing with two ocelli, having white pupils and orange-tawny irides, edged on each side with black. Anal angle of the hind wing with two black spots in the same situation as those of the upper side, but surmounted by two short blackish lines.

This extremely beautiful and peculiar species of *Morpho* was not an uncommon insect in the forest of Ega, at the commencement of the rainy season, from December to April; but its extremely lofty flight prevented me from obtaining more than two examples, one of which is now in the British Museum collection, and one in my own. It resembles somewhat *M. Eugenia* (E. Deyrolle, Ann. Soc. Ent. Fr. 1860, p. 209) of Cayenne, but differs in the rounded form of the hind wing and in other particulars.

181. *Morpho Rhetenor*, Cramer.

*Papilio Rhetenor*, Cramer, 15 A, B, ♂.
—— *Andromachus*, Cramer, 56 A, B, ♀.

Found throughout the Amazons region, from Pará to Ega. Its flight is very lofty, so that it is extremely difficult to capture. It delights in the broad alleys of the forest, sailing along them from end to end at a height of from 20 to 50 feet from the ground.

## XXV.—Eumolpidarum *Species novæ*.

By the Rev. T. A. Marshall.

### Genus Pseudocolaspis.

Laporte, Silb. Rev. Entom. i. p. 23.
Thomson, Arch. Entom. ii. p. 214.

Genus a natura ipsa luculenter expressum, et distinctum satis. Species plures Africanæ; pauculæ tantum in Europa degunt, eæque, ut fit, inter statura minores. Libet hic, pro more nostro, descriptiones hucusque editas, adjectis auctoritatibus, enumerare. *P. cærulea, metallica*, Lap. l. c.; secunda etiam a Peters, Reise nach Mossambique, p. 338, laudata; *timidithus*, Thoms. l. c. pl. 3. fig. 8, *punctato-lineata, aurichalcea, sculptilis*, Thoms. ibid.; *Murrayi*, Baly, Journ. of Ent. vol. i. 1861, p. 197; *setosa*, Lucas, Expl. Scient. de l'Algérie (Zool.), ii. p. 518, fig. color. cum partibus oris, etc.; *rubripes*, Schaufuss, Ann. d. l. Soc. Ent. d. France, 1862 (sér. 4), t. ii. p. 311. Hisce speciebus partium in universum summa est affinitas; *P. Murrayi* et *timidithus* abludunt, illa magnitudine abnormi et corporis glabritie, hæc elytrorum colore. Quatuor etiam species ex insulis Canariensibus celebrantur, sc. *P. divisa, dubia, splendidula, obscuripes*, Wollaston, Catalogue of Canarian Coleoptera, p. 394, de quibus, a me nondum visis, nihil proferre audeo. *P. cylindricam* Hoffmans. (Küst. Käf. Eur. iv. 92) femoribus inermibus, Pachnephoris adscribo. De moribus nihil innotuit. Hoc genus haud ita longe a *Scelodonta* Westwood distat: post Eumolpos genuinos ambo proxime stabunt, certe in eadem legione militantes. Sed in tanta specierum copia vix proderit lineam hic illic inconsulto ducere; auctore potius opus est qui rem totam uno tractu absolvat, et altiore indagine persequatur. Nos interim, quantumvis inviti, absistimus, utpote quibus nec otium nec vires ad tale opus suscipiendum sufficiant.

### *Pseudocolaspis sericata*.

*P.* breviter oblonga, cylindrica, subdepressa, cuprea, parum nitida, pube brevi adpressa (in elytris utrinque posterius crispata) cinerea vestita.—Long. lin. 3.

Caput fronte strigosa, medio longitudinaliter impressa. Antennarum articuli 1–6tum æneo-virides; cæteri fuscescentes. Thorax postice subglobosus, tumidus, densissime punctatus, punctis ad latera rotundis, sensim discum versus longioribus, donec in medio rugæ evadunt longitudinales, irregulares, confertæ. Elytra confuse punctulata, pubescentia, pube in strias quatuor obsoletas, apice convergentes, digesta; humeris fere nudis. Corpus subtus cum pedibus cupreum, nitidiusculum.

*Hab.* Bonæ Spei promontorium. In coll. Rev. H. Clark.

*Pseudocolaspis haliporphyra.*

*P. cæruleæ* Lap. persimilis. Purpurea, viridi et cæruleo micans. Thorax transversus, basi et lateribus setulosus. Humeri aurati.—Long. 2–2¼ lin.

*P. cæruleæ* Lap. proxime affinis, at distincta et alia. Differt colore purpureo, scutello et sutura æneo-viridibus; thorace pedibusque plus minus cæruleo vel viridi-æneis; thorace breviore, transverso, basi tantum et lateribus parce setuloso; elytris punctato-striatis punctis majoribus, postice haud angustatis, basi nudis, post medium parce striatim setulosis, setulis erectis albidis. Callus humeralis aureolus. Cætera omnino ut in *P. cærulea*. ♀. ♂ angustior, colore magis viridi.

*Hab.* Natal. In coll. Rev. H. Clark.

*Pseudocolaspis aureovillosa.*

*P.* cylindrica, elongata, læte viridis, metallica. Elytra postice densius aureo-villosa. Antennarum articuli 2–6$^{tum}$ rufo-picei, interdum rufi. Pedes virides, villosi.—Long. lin. 2–2⅓; lat. hum. lin. 1.

Corpus totum fortius punctatum, præsertim in fronte; punctorum interstitiis subtilissime aciculatis. Labrum læve, splendidum; oculi rufi. Antennarum articulus 1$^{mus}$ viridis, metallicus, 2–6$^{tum}$ rufo-picei, supra p. p. metallici, interdum toti rufi; clava nigra. Thorax cylindricus, haud longior quam latior, antice angustatus, angulis subito deflexis, supra inconspicuis, lateribus medio perparum rotundatis, basi elytris angustior. Elytra thorace plus duplo longiora, parallela, apice vix angustata, dorso et postice ubique rotundata, cylindrica. Pedes et totum corpus tam supra quam infra villis longioribus, pallide aureis, crinitum. Elytrorum villositas apicalis multo densior, sub ipsum apicem quasi striatim disposita. In thoracis elytrorumque disco villos nonnullos cæteris longiores videre est, nigricantes. Femora modice incrassata.

*Hab.* Natal. In coll. Rev. H. Clark.

Adnot. *P. setosæ* Lucas simillima, nec facili negotio distinguenda. Differt ante omnia canitie multo longiore et densiore, sericea, molli, nec breviter setiformi: tum etiam capitis punctura fortiore, statura magis angusta, thorace magis cylindrico, disco minus deplanato, antice angustato, parum gibboso.

*Pseudocolaspis semipurpurea.*

*P.* nigro-cærulea, elytris purpureis; parcissime et breviter setosa. Supra planiuscula, elytris subquadratis. Thorax lateribus rotundatus, medio antice subgibbosus. Antennæ pedesque nigri.—Long. lin. 2–2½; lat. hum. lin. 1.

Caput, thorax, elytra fortius punctata, punctis fere æqualibus; interstitiis punctorum vix aciculatis. Labrum læve, splendidum. Oculi rufi. Thorax transversus, medio perquam convexus, fere gibbosus, antice angustatus et depressus, postice utrinque subdepressus, angulis fere rectis. Elytra thorace plus duplo longiora, lata, disco subdepressa,

purpurea, lateribus et apice parce setosa, setis brevibus, exstantibus. Cætera fere glabra, aterrima, punctata. Femora fortiter incrassata, dentibus conspicuis, obtusis.

*a.* Variat elytris nigro-cæruleis.

*Hab.* Natal. In coll. Rev. H. Clark.

*Pseudocolaspis azurea.*

*P.* brevis, crassa, viridi-cyanea, antennis pedibusque rufescentibus, femoribus ultra medium cyaneis; sterna et corpus subtus purpurea. Thorax parum gibbosus, antice subattenuatus, dense punctatus, punctis oblongis. Elytra parcius, subtilius et vix seriatim punctulata, postice paulo latiora, haud setifera. Tibiæ posticæ fortiter arcuatæ.—Long. lin. $1\frac{1}{2}$.

*Hab.* Senegambiam.

A *P. haliporphyra* differt brevitate et crassitie, pedibus antennisque rufis; etiam paulo minor. Ne cum *P. cærulea* Lap. confundas obstat tam color et magnitudo quam totius corporis glabrities. A cæteris satis distincta.

*Pseudocolaspis puberula.*

*P.* ovata, corpore crasso, thorace breviter cylindrico, antice angustato. Supra obscure viridis, parum nitida, parce et longius pallido pubescens. Antennæ rufo-fuscæ. Corpus subtus pedesque obscure cuprea. Femora antica modo unidentata, modo inermia (accidit etiam ut femur dextrum dentatum sit, alterum inerme). Tibiæ plus minus rufescentes.—Long. lin. $2\frac{1}{2}$.

*Hab.* Bonæ Spei promontorium.

Species quoad faciem a cæteris abludens, quæ tamen me judice vix genus sibi proprium vindicare queat. Cf. etiam sub sequente.

*Pseudocolaspis servula.*

*P.* brevis, crassa, cum pedibus cupreo-metallica, antennis rufescentibus. Supra tota punctulata, punctis non seriatis. Elytra postice brevissime albido setulosa, lineis tribus longitudinalibus, parum distinctis, subglabris, minus punctatis,—sæpe obsoletis. Femora valde incrassata, haud dentata.—Long. lin. $1\frac{1}{2}$.

*Hab.* Bonæ Spei promontorium.

Species, ut videtur, communis, et satis facile a *P. metallica* Lap. discriminanda: imprimis propter femora edentata: thorax etiam brevior, haud gibbosus: totum corpus minus cylindricum, brevius; statura minor; puncta subtiliora.

Sunt qui hanc etiam speciem in suum sibi genus relegare velint. Ego autem nec femorum meram dentationem aut simplicitatem per se genus constituere posse arbitror, nec discrimina alia inveni nisi specifica. Mediante hac specie deveniendum videtur in sectionem amplissimam olim una cum his a nobis tractatis sub nomine *Eubrachys* Dej. ordinatam. Harum non ita paucas ad *Colaspidema* (*Colaphum*) pertinere

suspicor. Quæ restant, in animo est mox sub genere *Eubrachys* (nomine optime conficto) proponere.

### Genus Cyno.

*Corpus* elongatum, subdepressum, parallelum, dense villosum. *Caput* maximum, thoraci fere magnitudine æquale, thoraci ad oculos usque insertum, supra planum, semiporrectum. *Labrum* fortiter transversum, medio arcuatim emarginatum. *Mandibulæ* maximæ, validæ, capiti dimidio longitudine æquales; sinistra longior; ambæ apice fortiter bidentatæ. *Antennæ* omnino ut in *Pseudocolaspide*. *Thorax* subquadratus, antice leviter convexus, transversus, lateribus perparum rotundatus, basi vix bisinuatus, undique anguste marginatus. *Scutellum* hemisphæricum. *Elytra* capite cum thorace vix longiora, hoc paulo latiora, dorso deplanata, apice subito declivia, postice subangustata. *Corpus* subtus omnino ut in *Pseudocolaspide*. *Pedes* femoribus edentatis; *tibiis* rectis; *unguiculis* appendiculatis.

Genus *Pseudocolaspidi* germanum. Differt imprimis mandibularum et capitis magnitudine; thorace plano, subquadrato; femoribus inermibus; tibiis rectis. Species unica mihi in promptu est:

#### *Cyno mordicans.*

*C.* obscure ænea, antennis mandibulisque rufis, harum apice nigro. Supra tota irregulariter punctulata, ubique pube longa, adpressa, albicante vestita: scutellum ante omnia densissime villosum. Pedes femoribus cupreis, nitidis; tibiis rufis; tarsis fuscis.—Long. lin. 3–4.

N.B. Variat capitis magnitudine.

*Hab.* Africam meridionalem.

### Genus Eriphyle, Baly.
### Journ. of Ent. ii. 1864, p. 222.

*Caput* verticale, thoraci ad medios oculos insertum. *Frons* inter oculos leviter foveolata. *Oculi* prominuli, oblongi, intus perparum sinuati. *Antennæ* corpore dimidio breviores, extrorsum crassiores, articulo 1° crasso, oblongo, setifero; 2° plus duplo breviore, vix angustiore; 3° ad 6$^{um}$ gracilibus, elongatis, 3° breviore quam 4$^{us}$; 7°–11$^{um}$ dilatatis, compressis, apice utrinque setiferis, pubescentibus, clavam 5-articulatam constituentibus. *Palpi maxillares* articulo ultimo obtuse conico. *Thorax* latus, transversus, disco subdeplanatus, modice convexus, lateribus marginatus, angulis anticis in denticulum brevissimum, obtusum, recurvum productis. *Scutellum* parvum, oblongum, apice rotundatum. *Elytra* thoracis basi perparum latiora, oblonga, convexa, postice vix angustata, lateribus ad trientem usque parallelis. *Femora* antica subclavata, subtus levissime tuberculata; intermedia et postica subclavata, mutica; *tibiæ* simplices; *tarsi* postici elongati.

Inter species ab auctoribus tractatas video huc referendas esse *Colaspidem* 8-*guttatam* Oliv. 883, pl. 1. fig. 10, *unipunctatam* Oliv. 884, pl. 1.

fig. 11, *pallidam* Oliv. 888, pl. 2. fig. 21, et *limbatam* Oliv. 884, pl. 2. fig. 12. Ultimam non vidi. Verisimile tamen videtur *E. circumcinctam* a me hic loci descriptam cum illa congruere. Sed quum nostra species *Olivieranæ* vix ad amussim quadret, facere non potui quin ut novam proferrem. Species omnes Americam meridionalem incolunt.

*Eriphyle rufovittata.*

*E.* rufo-fulva vel badia; elytra singula lituris duabus magnis, nigris, subquadratis, vitta lata fulva interjecta discretis.—Long. lin. $3\frac{1}{4}$; lat. hum. lin. $1\frac{1}{2}$.

Antennarum clava nigra. Oculi nigri. Mandibulæ apice fuscæ. Corpus, præter elytrorum lituras, rufo-fulvum, læve, subnitidum. Frons fere impunctata, inter oculos, ad clypei basin, foveolata. Thorax utrinque subtilissime et vage punctulatus, disco fere impunctatus. Scutellum rufo-fulvum. Elytra subtiliter, et, suturam juxta, striatim punctulata, stria unica suturali ad apicem continua, cæteris obsoletis. In utroque elytro lituræ duæ magnæ nigræ, quarum una, basalis, tertiam partem disci obsidet, at nec suturam contingit, nec marginem exteriorem; eadem postice sinuatur, angulum exteriorem oblique præcisa. Litura posterior minor, ante apicem truncata, a nigredine humerali vitta communi, transversali, rufo-fulva longius disjuncta. Pedes (cum ipsis unguiculis) rufo-fulvi, concolores.

*Hab.* Ad Amazonum flumen. Inter collectanea Batesiana.

*Eriphyle bipartita.*

*E.* cyaneo-atra, capite et thorace rubris. Elytra striato-punctata, interstitiis lævibus, extrorsum subelevatis.—Long. lin. $3\frac{1}{2}$; lat. hum. lin. $1\frac{1}{2}$.

Præcedente longior, elytrorum costis et colore satis distincta. Frons vage punctata, a vertice ad antennarum insertionem usque profunde unisulcata. Antennarum prælongarum articuli 1–4$^{um}$ fulvi, cæteri nigri. Thorax subsplendidus, saturate ruber, nec, nisi lateribus, punctatus. Elytra fortius seriatim punctata, punctorum striis geminatis, interstitiis lævibus et versus latera bis terque costatis. Cætera aterrima, supra cyaneo micantia.

*Hab.* ——?. In coll. Rev. H. Clark.

*Eriphyle circumcincta.*

*E.* testacea, elytrorum basi late, marginibus anguste nigris.—Long. lin. $3\frac{1}{2}$; lat. hum. lin. $1\frac{3}{4}$.

Statura et summa affinitas *E. rufovittatæ*. Testacea, pallida. Caput inter oculos late trianguliter foveolatum, paulo densius punctulatum. Antennarum articuli post quartum fusci. Oculi pallidi. Thorax lævis, splendidus; parce subtiliter, lateribus nonnihil densius punctulatus. Scutellum testaceum, tenuiter nigro limbatum. Elytra lævia, nitida, punctis æquidistantibus, nec tamen seriatis, modice impressa. Fascia lata basalis communis, cum elytrorum limbo undique angustiore, nigerrima. Fascia basalis postice arcuata, plus semel leviter emarginata,

prope suturam breviter in angulum porrecta. Limbus etiam elytrorum proxime ad apicem subinterruptus: margo reflexus undique extra nigredinem testaceus.

*Hab.* Cayennæ.

Species, siqua alia, elegans et propter picturam distincta. Quum tamen in his studiis colores ad animal definiendum vix per se sufficiant, dubius hæreo annon hæc nostra species ad *Colaspidem limbatam* Oliv. sit referenda. De hac re viderint qui plura specimina in manibus habent. Si quis unam esse eandemque probaverit, ita mallem ipse.

*Eriphyle rectilineata.*

*E.* tota rufo-fulva, elytris striis octo longitudinalibus nigris.—Long. lin. 3–3½; lat. hum. lin. 1½–1¾.

Paulo crassior et magis convexa. Frons levissime punctulata, foveola inter oculos lata, irregulari, super quam alteram impressionem parvam aliquando est videre. Antennarum articuli post 6tum fusci. Thorax lævis, nitens, lateribus et (oculo bene armato) etiam medio subtilissime punctulatus. Elytra modice irregulariter punctulata, singula nigro distincte quadrilineata. Harum linearum intima basi utrinque a sutura divergit; secunda et quarta ante basin desinunt, sed secunda longior; tertia apud humerum extus curvatur et ibidem paulo latior facta thoraci se applicat. Omnes ante apicem obsolescunt. In uno exemplari linea etiam quinta, imperfecta, extus in margine apparet. Corpus subtus cum pedibus concolor. Etiam unguiculæ pallidæ.

*Hab.* Guianam Gallorum; Cayennæ.

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## XXVI.—*A second Series of Descriptions of New Australian* Longicornia. By Francis P. Pascoe, F.L.S.

[Plate XVI.]

In reference to the following descriptions the only remark I have to make is, that the habitats of some of the species are uncertain. Those I have recently received from Mr. Macleay were merely numbered, and it is only inferentially that I have doubtfully referred them to New South Wales; but I think, if they had been from other localities, my valued correspondent would have mentioned it. The species from Western Australia were taken in the vicinity of Perth. For those from South Australia (taken in the apparently inexhaustible neighbourhood of Gawler) I am indebted to Mrs. Kruesler, as well as to Mr. Odewahn.

*Hebesecis Germari.*

*H.* fusca; antennis omnino fusco-brunneis, scapo subbrevi, obconico; prothorace capite multo latiore; elytris ovatis, tomentosis, griseis, nigro maculatis, basi remote et fortiter punctatis.

*Hab.* South Australia.

Head subglabrous, coarsely punctured, broader and more convex in front than *H. marginicollis*; antennæ entirely dark reddish brown, almost glabrous, except the fringe beneath, the scape rather short and very decidedly obconical; prothorax considerably broader than the head, closely and roughly punctured, clothed with a very dispersed pile; elytra ovate, tomentose, whitish or pale grey, with black spots larger and more confluent towards the apex, the base remotely and strongly punctured; body beneath and legs dull chestnut-brown, sparingly pubescent. Length 5 lines.

*Hebesecis** is one of the most difficult of the Australian Longicorn genera. The varieties of *H. marginicollis* seem almost endless; therefore it is not without hesitation that I propose this and the following as decidedly good species. Comparing an ordinary example of *H. marginicollis* with *H. Germari*, no two congeneric insects could appear more distinct; but the crowd of forms which branch off from the former throws, I must admit, an uncertainty upon all of them. Nevertheless, from the number of carefully ticketed specimens which I received from Australia, the conclusion of their being nothing more than varieties does not seem to have been arrived at there, where, of course, there must be much better means of deciding the point. *H. australis* and *H. crocogaster* are also very variable, but at the same time they have certain well-marked characters which render them easy of recognition. Putting colour out of the question as not to be depended on, the principal characters on which I rely for the distinctness of this species are the greater breadth of the head and prothorax, especially the latter, the close, curled, longish pile of the elytra, and the remoter punctation of their base.

*Hebesecis antennata.*

*H.* fusca; antennis annulatis, scapo elongato; prothorace capite multo latiore; elytris trigonatis, pube sparsa grisea maculatis, basi lateribusque subremote punctatis.

*Hab.* Port Dennison (*Mr. Macleay*).

Head broad and convex as in the last species, but covered in front with long, slender, nearly white hairs, almost hiding the roughly punctured derm beneath; antennæ nearly twice as long as the body, black, pubescent, the fourth and fifth joints at the base, and the sixth and eighth entirely, greyish white, the second and third joints considerably longer than in either *H. marginicollis* or *H. Germari*; prothorax much broader than the head, closely punctured, nearly or entirely glabrous, except a broad patch of whitish hairs at the side above the lateral spine; elytra trigonate, thinly pubescent, the pubescence chiefly confined to

* *Hebesecis*=*Hebecerus*, Thoms. I have been obliged to change the name in consequence of its having been previously used for a genus of Hemiptera.

little greyish spots, coarsely and rather more remotely punctured compared with *H. marginicollis*, and more generally, especially at the sides, compared with *H. Germari*; body beneath and legs blackish, covered with a pale ashy pile; the centre of the abdomen glabrous, glossy black. Length 5 lines.

The triangular outline of the elytra and the longer antennæ, more especially due to the greater length of the scape and third joint, will distinguish this species from the above and *H. marginicollis*. It may be noticed here that the prothorax of the latter appears to be *always* subquadrate, the lateral spine only slightly breaking the parallelism of the sides; while in the two species now described there is a very marked expansion of the sides from the anterior margin to the spine, which is more towards the base. Besides these, I have four more forms, each represented by a single specimen, which *appear* to be tolerably distinct; but, with such materials, it would be hazardous to describe them*.

### Ameipsis.

*Caput* antice quadratum, convexum, tuberibus antenniferis validis, elevatis, basi approximatis. *Oculi* late emarginati. *Antennæ* corpore longiores, scapo subcylindrico, basin versus attenuato, articulo secundo brevissimo, tertio parum longiore, tribus sequentibus longissimis sed gradatim decrescentibus, cæteris multo brevioribus. *Prothorax* quadratus, inæqualis, lateribus fortiter spinosis. *Elytra* brevia, lateraliter subito deflexa et carinata. *Pedes* æquales; *tarsi* breves, subdilatati; *acetabula* antica leviter angulata. *Prosternum* paulo elevatum, postice rotundatum. *Mesosternum* muticum.

This genus is closely allied to *Acanthocinus*? *plumula*, Newm., since referred to *Hebecerus*, but recently separated by M. Thomson under the name of *Probatodes*. It will, however, be easily distinguished by the shorter elytra bent down at a right angle at the sides, the angle forming a very marked and prominent carina. The shortness of the third joint of the antennæ in both genera is very remarkable.

*Ameipsis marginicollis.*

*A.* nigra, subnitida, pube alba maculata; prothorace lateribus griseo vittatis.

*Hab.* New South Wales? (*Mr. Macleay*).

* A species long known in collections under the name of *Hebecerus sparsus*, Reiche, appears, as far as I can ascertain, to be undescribed. It may be known by the lateral spine of the prothorax being more central, the moderately elevated lines on the elytra, which are uniformly speckled with white, and the pubescence beneath generally diffused, with small glabrous spots at irregular intervals. It is from Western Australia.

Black, with a slightly bluish tint, subnitid, with small confluent patches of whitish pile, the prothorax with a broad greyish stripe on each side; head deeply sulcated between the tubers, pubescence greyish, and chiefly below the eyes; prothorax with a glabrous central line on the disk, slightly gibbous on each side, the greyish stripe, formed of close-set hairs, very broad and embracing the spine; scutellum transverse; elytra with an elevated line between the lateral carina and the suture; body beneath glossy black, with whitish hairs chiefly at the sides; legs covered with a pale-greyish pile; antennæ black, with long scattered hairs, the sixth joint plumose at the apex, the fourth to the eighth with more or less of a whitish pile at the base. Length 4 lines.

### Corrhenes.

*Caput* latitudine vel fere latitudine prothoracis, antice transversum, tuberibus antenniferis validis, basi distantibus. *Oculi* fere divisi. *Antennæ* corpore breviores, paulo incrassatæ, scapo subcylindrico, articulo tertio longiore, quarto breviore, cæteris brevioribus. *Prothorax* quadratus vel subquadratus, ad latera dente antico. *Elytra* subangustata, integra. *Pedes* fere æquales in utroque sexu. *Tarsi* lineares, vel articulo penultimo præcedente vix latiore. *Pro-* et *meso-sterna* elevata.

The type of this genus is the *Saperda paulla* of Germar (Linn. Entom. iii. p. 230), but which, on account of its toothed prothorax and elevated prosternum, should be referred to the vicinity of *Niphona*, Muls. From this and other allied genera *Corrhenes* differs either in the third antennary joint exceeding the fourth in length, or in its narrower prothorax (which is very little, or in some species not at all, broader than the head), and its single prothoracic tooth. In the 2nd and 3rd series of the Transactions of the Entomological Society I have published three species; these, with *C. paulla* and the one described below, comprise all the members of this group known to me.

### *Corrhenes guttulata.*

*C.* murino-fusca; antennis haud annulatis; capite albo notato; prothoracis vittis duabus elytrorumque guttulis numerosis albis.

*Hab.* New South Wales? (*Mr. Macleay*).

Closely covered with a mouse-coloured brownish pile, with numerous slender erect hairs intermixed; head with large white spots; prothorax with a well-marked lateral tooth, the disk with four waved longitudinal white lines, the two lateral feebly marked; scutellum rounded behind; elytra sparingly punctured with several small, well-defined white spots; body beneath with a thin mixed white and grey pubescence; femora and tibiæ spotted with white, the pubescence on the tarsi almost entirely white; antennæ at the base brownish, with white spots, then whitish, becoming darker towards the apex. Length 6 lines.

*Symphyletes arctos.*

*S.* elongatus, piceus, pube sparsa grisea tectus; prothorace oblongo, subcylindrico; elytris basi spinoso-cristatis, apice emarginatis.

*Hab.* Western Australia.

Elongate, with a short, sparse, greyish pile, spotted with ochreous on the base of the elytra; head clothed with close-set whitish hairs, and long, scattered hairs of the same colour intermixed and extending over the basal joints of the antennæ; prothorax oblong, nearly cylindrical, scarcely wider at the base than at the apex; elytra very slightly receding from the shoulders, each at the base with four rows of black spines, the suture-row of five or six short spines, the next with three much longer, the outer two of three or four spines, each shorter and more irregular, the apex obliquely emarginate, but the angle on each side only slightly produced; body beneath and legs with a lax whitish pile; antennæ longer than the body, with a loose whitish pubescence, very slightly spotted, and with a well-marked fringe beneath. Length 8 lines.

This species belongs to the same section of the genus as *S. pedicornis*, Fab., but is more nearly allied to *S. fumatus* (*ante*, p. 224); it is, however, a less robust form, with a nearly cylindrical prothorax, the base of the elytra much narrower, the pubescence thinner and more irregular, and the antennæ with a very much longer and laxer fringe. The peculiar curve at the end of the antennæ is strongly developed in both species.

*Symphyletes vicarius.*

*S.* rufo-piceus, pube sparsa grisea tectus; prothorace breviter subcylindrico; elytris subtrigonatis, postice granulis subseriatim instructis, apice oblique truncatis.

*Hab.* New South Wales? (*Mr. Macleay*).

Derm pale-reddish pitchy, with a thin greyish pile, spotted with ochreous and white on the elytra; head with a deep mesial line, covered with rough, mixed ochreous and greyish hairs; prothorax about equal in length and breadth, broader than the head, subcylindrical, but a little contracted anteriorly; scutellum transverse, broadly rounded behind; elytra subtrigonate, rounded at the shoulders, the apex obliquely truncate, the outer angle more produced than the inner, the base with several glossy-black granules, arranged somewhat in lines, but none on the suture, spots of white principally posteriorly, but forming two or three narrow interrupted lines towards the apex; body beneath with a greyish pile; legs with a mixed greyish and brown pile; antennæ rather longer than the body, semiglabrous, with a short fringe beneath. Length 7 lines.

Allied to *S. variolosus* (Pascoe, Journ. of Entom. i. p. 340); but

in that species the elytra (*inter alia*) are somewhat parallel, incurved behind the shoulders, and their apices rather narrowly emarginate.

*Symphyletes satelles.*

*S.* flavo-castaneus, nitidus; elytris subangustatis, lineis elevatis nullis, basi spinosis, pone humeros plaga nivea, apice recte emarginatis.

*Hab.* Western Australia.

Yellowish chestnut, shining, nearly glabrous above; head rather narrower than the prothorax, sparingly punctured; antennæ a little longer than the body, thinly fringed beneath; prothorax subtransverse, nearly cylindrical, slightly corrugated in the centre; scutellum rounded behind; elytra rather narrow, slightly decreasing from the shoulders, the base with several concolorous obtuse spines, the apex transversely emarginate, the angles scarcely produced, the sides with an ill-defined snowy stripe or patch behind the shoulders; body beneath with a sparse pale-ochreous pile, spotted with brown on the postpectus; legs nearly glabrous, except the extremities of the tibiæ and the tarsi. Length 5 lines.

In some of its characters this species is somewhat intermediate between *S. derasus* and *S. egenus*, agreeing with the former in the absence of the elevated lines on the elytra, which more particularly distinguish the latter, and, on the other hand, agreeing with *S. egenus* in the obsolete or nearly obsolete patch at the sides which is so marked in *S. derasus* as well as in many other species of this genus. From both it differs in its narrow elytra, spined at the base and transversely emarginate at their apices, and smaller size, although this last is a character which at present cannot be strongly insisted on.

Iphiastus.

*Caput* antice transversum, infra oculos dilatatum, tuberibus antenniferis robustis et prominentibus, basi approximatis. *Prothorax* turgidus, latitudine longitudini æqualis, antice constrictus. *Elytra* subtrigonata, basi subbigibbosa, humeris prominulis, rotundatis. *Corpus* robustum. Cæteris ut in *Symphylete*.

The habit of this fine Longicorn is so much at variance with *Symphyletes*, to which genus I originally referred it, that I have felt constrained to propose its separation, although the characters given above can only be considered as those of that genus, as it stands at present, considerably exaggerated. The type is

*Iphiastus heros.* (Pl. XVI. fig. 4.)

*Symphyletes heros*, Pascoe, Trans. Ent. Soc. 3. i. p. 531.

*Rhytiphora sospitalis.*

*R.* dense griseo pubescens, ochraceo maculatus; prothorace cylindrico; elytris granuliferis, margine exteriore basi argenteis, apice truncatis.

*Hab.* Western Australia.

Closely covered with a short uniform greyish pile, spotted or, on the prothorax, banded with ochraceous; head with reddish ochraceous lines in front and around the eyes; prothorax short, cylindrical, with transverse slightly impressed lines and ochraceous interrupted bands; scutellum subquadrate, rounded behind; elytra subcylindrical, truncate at the apex, without any raised lines, covered with numerous small black glossy granules, the external border from beneath the shoulder to beyond the middle with a silvery-white stripe, the ochraceous spots small, but very distinct; body beneath and legs greyish pubescent, with diffused reddish-ochraceous spots; antennæ rather shorter than the body, subglabrous, with small grey spots. Length 12 lines.

A very distinct species, in many respects resembling *R. polymita*, but with truncate elytra and a silvery stripe on their external borders.

*Rhytiphora saga.*

*R.* pube griseo-fuliginea dense tecta; prothorace lateribus subrotundo, antice fortiter dentato; elytris brevibus, granuliferis, basi linea elevata, apice rotundatis.

*Hab.* Western Australia.

Closely covered with a short smoky-greyish pile, with paler patches on the elytra; head in front marbled with smoky and pale grey; prothorax rather short, slightly rounded at the sides, with a strong tooth anteriorly, the disk with interrupted irregular ridges, divided in the middle by an impressed longitudinal line; scutellum transverse, rounded behind; elytra short, the sides parallel, rounded at the apex, two slightly raised lines on each, the inner at the base forming a kind of crest, several glossy-black granules scattered over the surface, behind the scutellum a pale semicircular patch, another at the side behind the shoulder, and a third extending obliquely outwards from behind the middle; body beneath and legs with a whitish pile, with diffused patches of ochraceous on the breast; antennæ subglabrous, brown. Length 10 lines.

A short, compact species, remarkable for the greater prominence of the lateral tooth, but in colour resembling to a certain extent *R. caprina*.

*Penthea sectator.*

*P.* dense pubescens, pilis albis adspersis, obscure ochracea; prothorace antice albo fasciato; elytris subtiliter punctatis, albo plagiatis; antennis nigris.

*Hab.* South Australia (*Mr. Odewahn*).

Closely covered with a dull ochraceous pile, varied with white, with

long setaceous hairs interspersed; head with a loose greyish pile in front, ochraceous on the vertex; prothorax nearly as broad as the elytra, with a white band just behind the apex; scutellum transverse, black: elytra finely and remotely punctured; three or four granules at the base, patch behind the scutellum, another behind the shoulder, and a band, interrupted at the suture, behind the middle, white: body beneath and legs with a loose greyish pile; antennæ black, with stiff, scattered, black hairs. Length $4\frac{1}{2}$ lines.

It is with a certain hesitation that I propose this as a species distinct from *P. picta*; it differs chiefly in the finer punctation of the elytra, in the absence of the black spots and patches, and in the broad, not flexuous, posterior band. The ochraceous colour is duller and more inclining to brown. I have received a single specimen from Mr. Odewahn.

DEPSAGES.

Characteres ut in *Penthea*, sed capite prothorace angustiore, hoc basi apice multo latiore, tuberibus antenniferis basi approximatis, et elytris granuliferis, haud carinatis.

The type of this genus is *Lamia granulosa* of Guérin, a species differing altogether in habit from *Penthea vermicularis* (with which it has been associated) and remarkable for the black glossy granules of the elytra. There still remains in *Penthea* a number of small species with narrower heads, scarcely any carinæ on the elytra, and certain peculiarities of coloration, such as *P. scenica*, *P. picta*, &c., but showing a passage of some sort through *P. pullina*, *P. pardalis*, and *P. intricata* to the type, which, to a certain extent, disturb the homogeneity of the genus. However, with a good series of species and specimens before me, I do not see any advantage in further dividing it. The only representative of this new genus is

*Depsages granulosa*.

*Lamia granulosa*, Guérin, Voy. de la Coq. ii. p. 133, pl. 7. fig. 8.

SYSSPILOTUS.

*Caput* antice transversum, tuberibus antenniferis validis, remotis. *Oculi* late emarginati. *Antennæ* longitudine corporis; scapo subpyriformi, quam articulus tertius breviore; articulo quarto curvato, tertio longiore; cæteris brevioribus et gradatim decrescentibus. *Prothorax* irregularis, antice postice æqualis. *Elytra* oblonga, parallela, irregularia, basi cristata. *Pedes* mediocres; *tibiæ* rectæ. *Pro-* et *meso-sterna* clavata, hoc antice dentatum.

Distinguished from all the genera of Australian *Niphonina*, including *Platymopsis*, *Symphyletes*, *Penthea*, &c., by its toothed meso-

sternum, and the fourth antennary joint longer than the preceding one.

*Sysspilotus Macleayi.*

*S.* griseo pubescens, brunnescente varius; antennis pedibusque fuscis, griseo maculatis.

*Hab.* New South Wales? (*Mr. Macleay*).

Clothed with a dense pale-greyish pubescence, varied with shades of lightish brown; head with a very slight mesial line, a small tubercle in front of the inner angle of the eye; prothorax with a double tubercle on the disk on each side, and a smaller one between it and the strongly produced lateral tooth; scutellum rounded behind; elytra strongly crested at the base, the crest pilose, externally two elevated irregular lines, which are slightly tuberculate behind, each emitting three or four raised points towards the apex, punctures scattered, nearly hidden by the pubescence, centre of the disk at the base pale greyish brown, near the middle a dark semicircular transverse line, another near the apex, and between the two a paler band; body beneath greyish, spotted with dark brown; legs and antennæ pubescent, dark brown, spotted with greyish white, the latter rather longer than the body. Length 9 lines.

MICROTRAGUS.

*Caput* antice convexum, genis turgidis; tuberibus antenniferis brevibus, erectis, approximatis. *Oculi* lunulati, infra acuti. *Antennæ* corpore breviores, basi approximatæ; scapo cylindrico, haud cicatricoso; articulo tertio longiore, sequentibus gradatim decrescentibus. *Prothorax* rotundato-ovatus, lateraliter dentatus, capite latior. *Elytra* elliptica vel elliptico-ovata, compressa, singula spina humerali excurvata instructa, et bicarinata, apice producta. *Pedes* mediocres, attenuatæ; *tarsi* lineares, postici et intermedii articulo basali elongato. *Prosternum* subelevatum, postice rotundatum. *Mesosternum* elevatum, antice rotundatum. *Corpus* hirtum vel squamosum.

The first species of this genus was published and figured by Mr. White, in the Appendix to Stokes's 'Discoveries in Australia' (1846), under the name of "*Microtragus senex*"*, but without any attempt

* *Obrida* is another genus *barely* mentioned in the same work; at least, all that appears of it is just in this form:—"Clytus (Obrida) fascialis." Then follows a brief description of the species. It is really difficult to know what to make of this style of nomenclature. Is it a *Clytus*? or, if something else, what has *Clytus* to do with it? The following are its characters:—

OBRIDA.

*Caput* porrectum, antice breve, tuberibus antenniferis obsoletis. *Oculi* prominuli, reniformes, grosse granulati. *Antennæ* breves, lineares, basi haud approximatæ; scapo breviusculo, ad basin attenuato; articulis tertio et quarto æqualibus, quam scapo brevioribus, cæteris plus minusve longioribus. *Pro-*

being made to define the genus itself—merely the remark that it was allied to *Cerægidion*, Boisd. The above characters I have drawn up from *M. Arachne*, which is the nearest ally to *M. senex*—a species I do not possess. The genus is a very distinct one, belonging to the *Dorcadioninæ*, remarkable for its eyes being pointed beneath, and its closely approximate antennæ. The head, from its rounded front and cheeks, looks like a rabbit's. The palpi are short and rather broadly truncate in *M. Arachne*, long and just bluntly pointed in *M. amycteroides*. The eyes are more or less finely granulated. The body, in most of the species, is covered with little, short, flat scales, as in the *Curculionidæ*, to one group of which, the *Amycterinæ*, this genus bears an extraordinary resemblance; but in *M. Arachne* the scales are narrower and longer, scarcely differing from true hairs. The prosternum varies as to amount of elevation according to the spines: the females are larger and stouter than the males.

*Microtragus Arachne.*

*M.* pubescens, nigro setulosus; prothorace rugoso-punctato; elytris griseo-murino variis, atro maculatis, carina discoidali postice suturam versus obsoleta.

*Hab.* Western Australia (*Mr. Du Boulay*).

Rather coarsely pubescent with scattered black setulose hairs; head dark brown, with short greyish hairs and a few large punctures in front; prothorax dark brown, coarsely punctured, the lateral tooth hooked backwards at its point; scutellum very small, triangular; elytra pale lemon-yellow, the suture darker, tessellated with large black spots, the two carinæ entire and well marked, the apex of each elytron slightly rounded; body beneath sparsely covered with flat whitish hairs; legs and antennæ clothed with a mostly whitish scaly pubescence, with numerous black setæ intermixed. Length 7 lines.

*Microtragus Mormon.*

*M.* dense griseo squamulosus; prothorace late ovato, disco leviter punctato; elytris carina discoidali integra, carina externa serrata, apice singulorum rotundato.

*Hab.* The Murray River, South Australia (*Mr. Odewahn*).

Closely covered with minute greyish scales; head with a strongly marked line on the vertex, extending to the epistome, and deeply cleft

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*thorax* æquatus, ad latera rotundatus. *Elytra* brevia, parallela, lineis elevatis instructa. *Pedes* postici elongati; *femora* clavata; tarsorum posticorum articulo basali duobus sequentibus simul haud longiore. *Pro-* et *meso-sterna* elevata, hoc antice productum. *Corpus* depressum, sparse hirsutum.

In the Australian insect-fauna, this genus will stand after *Typhocesis*.

between the tubers; prothorax broadly ovate, the disk somewhat flattened, with small scattered punctures, the sides very rugose; scutellum very transverse, slightly emarginate behind, its edges considerably elevated above the elytra; elytra oblong ovate, the discoidal carina smooth and nearly entire, the outer carina strongly marked, having a somewhat serrated edge, the apex of each elytron rounded; body beneath and legs closely covered with flattish yellowish-grey hairs. Length 10 lines.

Allied to *M. Waterhousei* (*ante*, p. 229), but with a broader prothorax and longer elytra; and at once distinguished by the apices of the latter rounded, and the discoidal carina smooth and nearly uninterrupted, not broken up into tubercles, as in that species. The scutella of the two are, as will be seen, widely different.

*Microtragus eremita.*

*M.* dense griseo squamulosus; prothorace breviter ovato, fortiter punctato-impresso; elytris carina discoidali interrupte piloso cristata, apice singulatim rotundatis.

*Hab.* The Murray River, South Australia (*Mr. Odewahn*).

Closely covered with minute greyish scales; head with the mesial line nearly obsolete, except between the tubers; prothorax shortly ovate, the disk not depressed, but marked, as well as at the sides, with coarsely punctate impressions; scutellum triangular, fitting the elytra so closely as to be scarcely distinguishable; elytra rather narrowly ovate, the sides with very coarse punctured impressions, the discoidal carina with five or six longitudinal tufts of dark short hairs, the outer carina not very marked, the apex of each elytron rounded; body beneath and legs covered with short greyish hairs, with numerous short black setæ interspersed. Length 7 lines.

Resembles the last; but, *inter alia*, the disk of the prothorax is not flattened, and the discoidal carina is crowned with pilose tufts. The scutellum is only to be distinguished by the aid of a good lens*.

* I have three more species in my collection, all from the Murray River, and for which I am also indebted to Mr. Odewahn; but they are very imperfect. I have, however, thought it would be desirable to give their diagnoses for the purpose of comparison with the above, simply attaching to them the initial only of the specific name under which they respectively stand in my cabinet, reserving their publication for more perfect examples.

(*i.*) *M. arachnidi* aff., pubescens, haud setulosus; prothorace rugoso-punctato; elytris fusco-griseis, fuscoque plagiatis, carina discoidali postice ad suturam fere attingente.

(*p.*) *M. Mormoni* aff., dense griseo squamulosus et nigro setulosus; prothorace disco dense vestito, lateraliter rugoso; elytris carinis duabus fere integris, regularibus, singulis apice rotundatis.

(*a.*) Præcedenti aff., dense griseo squamulosus et nigro setulosus; prothorace

PHÆAPATE.

*Caput* antice transversum, tuberibus antenniferis validis, divergentibus, basi approximatis. *Oculi* late emarginati, supra subapproximantes. *Antennæ* corpore longiores, graciles, scapo subovato, articulis tertio et quarto longioribus, cæteris gradatim decrescentibus. *Prothorax* æquatus, irregularis, lateraliter angulatus. *Elytra* oblonga, irregularia, apice singulorum acuto. *Pedes* breves. *Coxæ* anticæ haud approximatæ. *Prosternum* modice elevatum, postice dilatatum. *Mesosternum* latum, muticum. *Corpus* depressum.

Allied to *Ropica*, with some species of which it quite agrees in habit, but which differs in the rounded, not angulated, sides of the prothorax and its even disk.

*Phœapate albula.*

*P.* albescente pubescens; elytrorum lateribus macula magna triangulari subfusca.

*Hab.* Queensland (*Mr. Diggles*).

Derm dark testaceous, shining, covered with a rather thin whitish or greyish-white pubescence; head deeply channelled between the tubers; eyes slightly approximating above; prothorax about equal in length and breadth, scarcely narrower anteriorly, the sides gradually expanding into an angle placed rather behind the middle, the disk remotely punctured with a depressed callosity on each side, behind which there is a transverse constriction; scutellum transverse, pointed behind; elytra somewhat irregular, especially at the base, coarsely punctured, the apex divaricate and pointed, two or three nearly obsolete buff-coloured stripes anteriorly, the sides near the middle with a large triangular brownish spot; body beneath and legs pubescent, greyish; antennæ a little longer than the body, greyish-pubescent, the tips of the joints, from the fourth inclusive, dark brown. Length 4 lines.

APOSITES.

*Caput* antice elongatum, tuberibus antenniferis validis, obliquis, basi approximatis. *Oculi* magni, anguste emarginati, supra approximati, grosse granulati. *Labrum* minutum. *Palpi* breves, cylindrici, obtusi. *Antennæ* corpore longiores; scapo brevi, obconico; articulo tertio fere duplo longiore; cæteris subæqualibus; totis, primo et secundo exceptis, lateraliter productis. *Prothorax* oblongus, antice angustior, lateribus subrotundatus et inermis, angulis posticis productis. *Elytra* elongata, angustata, apicem versus gradatim attenuata. *Femora* compressa; *tibiæ* breves; *tarsi* elongati, articulo ultimo valido, postici articulo basali longiore. *Coxæ* anticæ exsertæ. *Acetabula* antica breviter angulata. *Prosternum*

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disco rugoso-punctato; elytris carina discoidali magis elevata, carina externa flexuosa, postice haud distincta, apicem versus crenato-producta.

simplex. *Mesosternum* declive. *Abdomen* molle, apicem versus sensim angustius, elytris longius.

The characters of this genus are in some respects very like those of *Neostenus* (Pascoe, Trans. Ent. Soc. ser. 2. iv. p. 91), the most essential differences being in the dilated, not cylindrical, third and fourth antennary joints, which, however, may possibly be only sexual, in the shortly angulated anterior acetabula with more exserted coxæ, in the normal elytra, and especially in the produced posterior angles of the prothorax. The head also is more decidedly rostrate; and the abdomen is soft enough to contract in drying, but it evidently tapers a little from the base, and extends a whole segment at least beyond the elytra. *Neostenus* is a puzzling genus. Originally I placed it in the Prionidæ, near *Philus*; and this was the position it occupied in M. Thomson's 'Essai.' In his 'Systema' they are both removed, *Philus* being referred to the "*Lepturitæ veræ*," close to *Vesperus*, and *Neostenus* finding a place almost immediately after *Phoracantha*, among the "*Eburitæ*," and consequently in the Cerambycidæ. I am inclined to think that it will form a natural subfamily with *Aposites*, *Lysestia*, and probably *Aphanasium**.

*Aposites macilentus.* (Pl. XVI. fig. 6.)

*A.* brunneus, obscure griseo pubescens.

*Hab.* South Australia (*Mr. Odewahn*).

Derm fulvous brown, somewhat shining, everywhere covered with a thin, short, greyish pubescence, except the antennæ, which have a very minute, close-set, cloth-like pile, the basal joint excepted; head deeply grooved between the tubers; prothorax with the pubescence scattered and irregular; scutellum rounded, except at the base; elytra closely punctured, each with four slightly elevated lines, the innermost shortly running into the suture, all disappearing towards the apex; antennæ a little longer than the body. Length 13 lines.

Lysestia.

*Caput* antice subelongatum, tuberibus antenniferis brevibus. *Oculi* mediocres, subgrosse granulati, leviter emarginati. *Labrum* et *palpi* ut in *Aposite*. *Antennæ* corpore longiores, scapo oblongo-ovato, articulo tertio quartoque longioribus et subcylindricis, sequentibus compressis, apice (ultimo excepto) paulo lateraliter productis et subæqualibus, ultimo præcedente longiore. *Prothorax* quadratus, lateribus inermis et subrotundatus, angulis posticis retractis. *Elytra* angustata, sutura

* Syn. *Solimnia*, Pascoe, Trans. Ent. Soc. ser. 3. i. p. 557. *Aphanasium* (J. Thomson, 'Essai,' &c., p. 300) was referred by its describer to the Prionidæ, where it escaped my notice until very recently.

excavata. *Pedes* fere ut in *Aposite*. *Coxæ* antice subglobosæ. *Acetabula* antica longe angulata. *Sterna* et *medipectus* ut in *Aposite*. *Abdomen* depressum, basi angustius, elytris longius.

This genus differs from the last in its antennæ, prothorax, the sutural excavation of the elytra, and in the more solid and flattened abdomen. In these characters it agrees to a certain extent with *Neostenus*; in that genus, however, the elytra are somewhat differently formed, not being excavated along the suture, but each elytron gradually diverging and curving slightly outwards at the apex; the legs are also remarkably short, and the prothorax is much broader than the head, with a semicircular outline.

*Lysestia rotundicollis*. (Pl. XVI. fig. 5.)

*L.* brunnea, subnitida; prothorace rufo-castaneo, lateribus leviter subrotundatis; elytris subtestaceis.

*Hab.* South Australia (*Mr. Odewahn*).

Dark fulvous brown, subnitid; pubescence exceedingly scanty; head rugosely punctured, but the punctures minute; mesial line very slight, and nearly confined to the vertex; prothorax somewhat corrugated, coarsely punctured, the sides slightly and evenly rounded; scutellum broadly scutiform; elytra pale brownish testaceous, almost impunctate, each with three slightly elevated lines, which are more marked posteriorly and unite near the apex, the apex ending in a short lateral spine; body beneath and legs with a thin silvery-grey pile; antennæ longer than the body, with a short, dense, cloth-like pile, the basal joint excepted. Length 8 lines.

*Lysestia morio*.

*L.* nigrescens, subnitida; prothorace ante medium leviter constricto.

*Hab.* Western Australia (*Mr. Du Boulay*).

Dark brownish black, subnitid, especially the elytra; prothorax slightly, but very decidedly, incurved or constricted between its middle and apex; scutellum transverse, truncate at the apex; body beneath with a silvery-white pile: in other respects agrees with *L. rotundicollis*.

*Eroschema atricolle*.

*E.* supra parce pilosum, atrum, nitidum, infra glabrum; elytris rufo-testaceis, aliquando postice atro-cæruleis.

*Hab.* Western Australia (*Mr. Du Boulay*).

Glossy black, clothed above with short, scattered, semierect hairs, beneath glabrous, shining; head and prothorax coarsely punctured, the latter entirely black, strongly constricted anteriorly, where also it is somewhat broader than in *E. Poweri*; scutellum rounded behind; elytra reddish testaceous, generally with more or less of a darker colour (but mostly blackish blue) posteriorly; each elytron with four

raised lines, the interstices rather finely punctured; antennæ rather more than half the length of the body, the first four joints rather hairy. Length 5 lines.

Nearly allied to *E. Poweri*, but with the head and prothorax more strongly punctured, the latter broader at the apex, and entirely black, the elytra paler, the lines and punctures less decided, and the whole less hairy. Both species have very much the look of some varieties of *Pteroplatus variabilis*; and the antennæ are very similar and remarkable, inasmuch as the third joint is nearly as large as the scape. I have treated of its affinities below.

### Chaodalis.

*Caput* antice productum, pone oculos constrictum, tuberibus antenniferis validis, brevibus, extus protuberantibus. *Oculi* renifermes, tenuiter granulati. *Palpi* lineares, obtusi. *Labrum* breve. *Antennæ* breviusculæ, compressæ; scapo et articulis quinque sequentibus (secundo excepto) subæqualibus, triangularibus; cæteris angustioribus. *Prothorax* antice constrictus, disco inæqualis, lateraliter angulato-dentatus. *Elytra* prothorace multo latiora, fere parallela vel postice paulo dilatata, sutura divaricata, lineis elevatis instructa. *Pedes* modice elongati; *femora* vix incrassata; *tibiæ* apice attenuatæ; *tarsi* graciles, præsertim postici. *Coxæ* anticæ exsertæ. *Acetabula* antica breviter et late angulata. *Pro-* et *meso-sterna* depressa.

I am indebted for my specimen of this most interesting insect to William Macleay, Esq., of Sydney, whose kindness I have so often had occasion to acknowledge. It is closely allied to *Eroschema*, differing chiefly in the prolonged muzzle, the prominent antennary tubers, causing a deep concavity between as well as below them, and the dehiscent elytra. The legs, particularly the tibiæ, are also larger and much more attenuated; the anterior coxæ more exserted, and their acetabula more vertical and less angulated. The position of *Eroschema* (and of *Chaodalis*) is a dubious one. M. James Thomson in his 'Essai,' placed it with the "*Lepturitæ*," in a division which he called *Pseudolepturitæ veræ*; but in his later work, 'Systema Cerambycidarum,' he has removed this division to the "*Cerambycitæ*," placing it in his group "*Callichromitæ veræ*." In the first instance it came very near *Stenoderus* and its allies; now they are widely separated. I cannot help thinking that its first position was the most natural, and that its true place is near *Stenoderus*, and not with *Pseudoleptura*, *Disidæma*, &c., notwithstanding the prolongation of the external maxillary lobe, a character which appears to me in this case to be over-valued. Originally I doubtfully referred it to the vicinity of *Pteroplatus*; but this was certainly erroneous. The

greatest objection to its alliance with *Stenoderus* is the form of its antennæ. It must, however, be recollected that several Australian groups in this direction are very isolated, as, for example, *Tropis*, *Tricheops*, *Bardistus*, *Diotima*, and others.

*Chaodalis Macleayi*. (Pl. XVI. fig. 1.)

*C.* ater, infra subnitidus; elytris, prothoracisque vittis duabus, aurantiacis; tibiarum basi et tarsorum articulis primo, secundo et quarto basi flavis.

*Hab.* New South Wales? (*Mr. Macleay*).

Black, beneath glabrous and subnitid; the elytra and an irregular stripe on each side of the prothorax of a beautiful orange; the tibiæ at their junction with the femora, and all the joints of the tarsi at the base, except the third, pale yellow; head clothed with a deep-black velvet pile; on the vertex two, and below each tuber a patch of rich metallic yellow hairs; face above the epistome nearly glabrous; prothorax nearly equal in length and breadth, strongly toothed at the sides, and above each tooth an elevated tubercle in the line of the orange stripe; scutellum triangular; elytra flattened, and rather dilated posteriorly, with short, roughish hairs, chiefly at the sides and shoulders, each elytron with six (including the two marginal) elevated lines, the interstices finely punctured; femora nearly glabrous; tibiæ and tarsi with short, stiffish hairs; antennæ, except a few rather scattered hairs at the base, nearly glabrous. Length 7 lines.

*Psilomorpha lusoria*.

*P.* rufo-aurantiaca; elytris apice cyaneo-chalybeatis; pedibus nigris, femoribus tibiisque anticis aurantiacis; antennis nigris, articulis quarto et quinto basi rufescentibus.

*Hab.* New South Wales? (*Mr. Macleay*).

Reddish orange; the elytra paler, but at three-quarters of their length becoming black, then quickly passing into steel-blue to the apex; abdomen dark brown, with a silvery-white shade, very finely and closely punctured; legs black, the anterior femora and tibiæ orange; antennæ rather longer than the body, black, with the fourth and fifth joints reddish at the base. Length 5 lines.

Resembles *P. apicalis*, Pasc., but at once distinguished by its anterior femora and tibiæ being orange-red. A very good figure is given of the type (*P. tenuipes*, W. Wilson Saunders) in the 'Transactions of the Entomological Society,' ser. 2. vol. i. pl. 4. fig. 1.

*Ametrocephala mira*.

*A.* brunneo-rufa, subglabra, capite elytrisque postice nigris, his medio signo ∧-formi albo-pubescente ornatis.

*Hab.* Western Australia (*Mr. Du Boulay*).

Light brownish red, almost glabrous, but with a few very much

scattered, erect, minute hairs; head much broader than the prothorax, black, impunctate, but scored with exceedingly minute transverse lines; parts of the mouth, except the tips of the mandibles, pale ferruginous; prothorax not so long as the head, but considerably longer than its greatest breadth, impunctate, the two discal tubers well marked, the lateral tubers also very large and obtuse; scutellum small, subtransverse; elytra broader than the head, impunctate, somewhat silky, especially posteriorly; from the suture, considerably below the scutellum, a narrow, white pubescent line, curving gradually outwards posteriorly; behind this, except a slight margin of reddish, silky black; body beneath glabrous, shining, the abdomen very dark brown or black; legs, especially the tibiæ, clothed with a few, long, erect hairs; antennæ more than half as long as the body, brownish towards the tip. Length 5 lines.

After a very close examination of *Pseudocephalus formicides*, Newm., and *Ametrocephala monstrosa*, Bl., I have come to the conclusion that they are congeneric. Mr. Newman's being the oldest name would have been adopted, but that, according to M. Thomson, it had been previously used by Burmeister. I have, however, taken *Ametrocephala* only provisionally: such unwieldy names should be looked on with disfavour. In collections, the genus *Zoëdia* is sometimes taken for *Pseudocephalus*; but the latter has rounded, or only slightly ovate, *entire* eyes. *Pseudocephalus arietinus*, Newm., from Tasmania, (according to the description) has the prothorax and elytra entirely black, except the white linear marks resembling the sign *Aries*, to which it owes its name. Two specimens were in a collection at Glasgow, but they have probably disappeared. Of *P. formicides*, I may remind our Australian friends that it is exactly like an ordinary-sized black ant, and it is possible that as such it may have been overlooked. The specimen in the British Museum (Mr. Newman's type) is the only one known to me.

### Exæreta.

*Caput* exsertum, pone oculos constrictum, antice elongatum; tuberibus antenniferis brevibus. *Oculi* reniformes, grosse granulati. *Palpi* triangulares, maxillares elongati. *Antennæ* breves, basi distantes, scapo obconico, articulis tertio et cæteris subæqualibus, quinto et sequentibus, ultimo excepto, lateraliter apice subproductis. *Prothorax* oblongus, antice angustior, angulis posticis acutis. *Elytra* oblonga, parallela, depressa. *Pedes* breves; *femora* fusiformia; *tarsorum* articulo penultimo dilatato; *coxæ* anticæ exsertæ, globosæ. *Acetabula* antica integra vel obsolete angulata. *Prosternum* angustissimum. *Mesosternum* depressum.

Technically this genus differs from *Isalium* principally in its short

legs and the dilated penultimate joint of the tarsi. These characters, the colour, and pubescence combine to give it an aspect *sui generis*.

*Excæreta unicolor*. (Pl. XVI. fig. 2.)

*E.* omnino lutescens, sparse breviter pilosa.

*Hab.* South Australia (*Mr. Bathurst*).

Entirely pale luteous, with short, scattered, erect hairs, scarcely noticeable, except under a lens; head and prothorax very sparsely punctured, the punctures shallow and indefinitely impressed; scutellum narrow, slightly pointed behind; elytra coarsely and closely punctured, punctures in regular rows at the base and near the suture, but irregular and gradually becoming smaller posteriorly, the apex rounded; body beneath luteous, shining; antennæ shorter than the body, slightly pilose. Length 5 lines.

ÆTHIORA.

Characteres ut in *Uracantho*, sed scapo longiore, attenuato, articulis cæteris cylindricis; prothoracis lateribus rectis, haud angulatis.

Besides these characters, the muzzle is longer and narrower than in *Uracanthus*; but the habit is precisely similar. I find in this, as in many other cases, it would be impossible to formulate a sufficiently satisfactory diagnosis of *Uracanthus* or of other genera, if exceptional species, like this, were not removed. Nevertheless I think it would generally be desirable if some differences of habit also accompanied what are often only technical discrepancies. The type is

*Æthiora fuliginea*.

*Uracanthus fuligineus*, Pascoe, *ante*, p. 238.

LYGESIS.

Characteres ut in *Bebio*, sed antennarum articulus tertius quam scapus haud brevior, cæteris brevioribus et æqualibus, fere cylindricis; elytra latiora; pedes mediocres; tibiis longioribus.

Originally described by myself as a *Didymocantha* (*Isalium*), from which it differs principally in the long, narrow prothorax and the nearly cylindrical joints of the antennæ. It is a weak and slender form, although much less slender than *Bebius*. The type is

*Lygesis cylindricollis*.

*Didymocantha cylindricollis*, Pascoe, Trans. Ent. Soc. ser. 2, v. p. 18.

BEBIUS.

*Caput* antice subelongatum; tuberibus antenniferis brevibus, remotis. *Oculi* prominuli, reniformes, grosse granulati. *Antennæ* breves, scapo

quam articuli cæteri longiore, apice incrassato, basin versus gradatim attenuato; articulis tertio quartoque cylindricis, hoc præcedente breviore; cæteris lateraliter paulo dilatatis, et quam quartus longioribus. *Prothorax* elongatus, subcylindricus, capite haud latior. *Elytra* linearia, apice singulorum rotundato. *Pedes* breves; *femora* simplicia; *tibiæ* quam *tarsi* vix longiores. *Pro-* et *meso-sterna* declivia. *Abdominis* segmenta fere æqualia.

A curious little insect, remarkable for its narrow elongate outline, is at present the only exponent of this genus, which differs from *Isalium* in the unusual character of the scape being the longest of the antennary joints, and in its very short legs, the tibiæ being scarcely longer than their corresponding tarsi.

*Bebius filiformis.*

*B.* omnino rufo-testaceus, oculis nigris.

*Hab.* South Australia (*Mr. Angas*).

Entirely reddish testaceous, with a few delicate greyish hairs, not visible, except under a lens; head roughly punctured in front; eyes large, black; prothorax with coarse, shallow punctures; scutellum narrow, concave, rounded behind; elytra deeply and coarsely punctured, the punctures crowded and irregular; body beneath reddish chestnut, shining; antennæ less than half as long as the body. Length $4\frac{1}{2}$ lines.

ÆSIOTYCHE.

*Caput* exsertum, pone oculos constrictum, antice subelongatum; tuberibus antenniferis validis, brevibus, approximatis, antice emarginatis, infra fronte transversim impressa. *Oculi* prominuli, reniformes, grosse granulati. *Palpi* triangulares, maxillares elongati. *Antennæ* elongatæ, apicem versus gradatim attenuatæ, scapo obconico, articulis cæteris cylindricis, muticis, quarto quam tertius vel quintus breviore. *Prothorax* oblongo-ovatus, inermis, disco irregularis. *Elytra* prothorace paulo latiora, elongata, irregularia, apice singulorum acuto. *Pedes* elongati; *femora* fusiformia; *tibiæ* et *tarsi* attenuata; *coxæ* anticæ globosæ, exsertæ. *Acetabula* antica anguste angulata. *Prosternum* subelevatum, angustum, postice dilatatum. *Mesosternum* declive. *Corpus* subdepressum.

A very distinct genus, referable to the *Cerambycinæ*, but distinguished by the cylindrical mutic joints of the antennæ combined with the almost linear femora.

*Æsiotyche favosa.* (Pl. XVI. fig. 3.)

*Æ.* fusco-castanea, subnitida; elytris favoso-punctatis, pone medium flavo plagiatis.

*Hab.* South Australia (*Mr. Bathurst*).

Dark chestnut-brown, slightly nitid, or having a gloss as if of varnish,

with a few erect, greyish, very remote hairs; head with a mesial line not extending to the vertex, but terminating directly below the tubers in a ∧-shaped impression; prothorax not broader than the head, favosely punctured, with two or three short shallow impressions on the disk; scutellum scutiform; elytra favosely punctured, three angular imperfect ridges on each, behind the middle an irregular oblique pale-yellow patch or two conjoined spots; body beneath and legs dark brown, metasternum in the middle dark red; antennæ not twice as long as the body, reddish brown, scantily pilose. Length 8 lines.

*Phoracantha flavo-picta.*

*P.* modice elongata, fusco-castanea; prothorace suboblongo, ad latera breviter spinoso, disco reticulato-punctato, trituberculato; elytris nitidis, medium versus grosse punctatis, singulis flavo triplagiatis, apice biapiculatis; femoribus fusiformibus.

*Hab.* South Australia (*Mr. Odewahn*).

Moderately elongate, chestnut-brown; head covered with coarse greyish hairs, deeply sulcate between the tubers; prothorax somewhat oblong, with a coarse, reticulate punctation and three smoothish tubercles on the disk, the sides shortly spined; scutellum elongate-triangular, with slightly rounded sides; elytra shining, very slightly pubescent, strongly punctured towards the middle, less so at the base, nearly smooth posteriorly, each elytron having three large pale-yellow patches, one at the base, the second at the middle, both of these somewhat oblique, and approximating towards the suture, so as to form, with those on the opposite side, a rough ×-shaped mark, the third patch oblong and near the apex, the apex itself obliquely truncate, with each angle spined, the outer spine being considerably the longest; body beneath brownish red; the abdomen much darker, covered with long grey hairs; legs and antennæ pale ferruginous, with a thin greyish pubescence, the latter scarcely as long as the body; femora fusiform. Length 12 lines.

A very distinct species, which I cannot approximate to any other known to me; in the disposition of colour on the elytra it is, perhaps, something after the style of *P. tricuspis*, which, however, is in all other respects very different.

Homæmota.

*Caput* antice transversum; tuberibus antenniferis brevibus, distantibus. *Oculi* mediocres, profunde emarginati. *Antennæ* corpori æquales, sublineares, scapo oblongo-ovato; articulo tertio multo longiore, apice mutico; sequentibus subæqualibus. *Prothorax* subglobosus, basi constrictus. *Elytra* prothorace vix latiora, depressa, parallela, apice integra. *Pedes* mediocres; *femora* clavata; *tibiæ* arcuatæ et compressæ; *tarsi* breves, intermedii et postici articulo basali cæteris longiore. *Prosternum* depressum. *Mesosternum* elongatum, declive.

This form appears to me to differ essentially from the North American genus *Euderces** only in the unarmed apex of the third antennal joint. It is true Dr. Leconte describes the thorax of that genus as being longitudinally plicate; but this is scarcely of generic value, an unpublished species from Texas, nearly allied, having it punctured in the ordinary way. Dr. Leconte omits the important character of the spine at the apex of the third joint. I do not see in what way M. Chevrolat's genus *Apelocera*† differs from *Euderces*, unless it be really the fact that the maxillary palpi have only *three* joints. M. Chevrolat has probably overlooked the basal joint. *Homæmota*, like *Euderces* and some others of this family, has its elytra adorned with a curious raised ivory streak; but in the genera mentioned it is central and transverse, or oblique. *Tillomorpha mœstula*, Wh. (of which I only know a single specimen, taken in Queensland, and now in the British Museum), nearly allied to these genera, appears to be a true *Tillomorpha*, which is otherwise confined to Chili.

*Homæmota basalis.*

*H.* fusco-nigra; elytris basi castaneis, singulis linea eburnea, obliqua, medio sita ornatis.

*Hab.* Western Australia (*Mr. Du Boulay*).

Brownish black, nearly glabrous, with a very few, long, slender, dispersed hairs; head finely punctured, a broad groove between the eyes, terminating above the mouth in a semilunar impression; prothorax with numerous shallow punctures; scutellum triangular; elytra divided in the middle on each side by an oblique, yellowish, ivory-like line, thickly punctured anteriorly to this line, with the base dark chestnut: behind the line impunctate, glossy, gradually acquiring a whitish pubescence towards the apex; body beneath black, the abdomen glossy; legs and antennæ brownish chestnut. Length 4 lines.

THERSALUS.

*Caput* breve, tuberibus antenniferis fere obsoletis. *Oculi* magni, late emarginati. *Antennæ* longissimæ, basi distantes, scapo brevi, incrassato; articulis tertio ad septimum subæqualibus, apice spinosis; cæteris sensim longioribus, ultimo elongato. *Prothorax* transversus, lateribus rotundatis. *Elytra* oblonga. *Pedes* mediocres. *Pro-* et *meso-sterna* subclavata, mutica.

I have separated the species on which this genus is founded from *Phacodes*, Newm., chiefly on account of its antennæ, especially of the short, thick scape and elongated terminal joint. The relative length

* Leconte, Journ. Acad. Nat. Sciences of Philadelphia, 1851, p. 30.

† Annales Soc. Ent. de France, sér. 4, t. ii. p. 61.

of the antennal joints, as well as the number having spines, will probably be found to vary, should other species be discovered. At least, such is the case in *Phacodes*. The type is

*Thersalus bispinus.*

*Phacodes bispinus*, Pascoe, Trans. Ent. Soc. ser. 3, i. p. 562.

*Phacodes elusus.*

*P.* fuscescens; prothorace irregulariter griseo pubescente, punctis dispersis annulatis; elytris pubescentibus, maculis glabris adspersis, apice singulis rotundatis.

*Hab.* South Australia (*Mr. Odewahn*).

Brownish, paler on the elytra; head and prothorax dull brown, with a short, greyish, irregular pile, the latter slightly transverse, much broader than the head, the sides rounded; the disk without any tubercles or elevations, but under a strong lens it is seen to be thickly punctured, and each puncture surrounded by a narrow, elevated margin; scutellum nearly circular; elytra rather elongate, closely punctured, the spaces between the punctures rising into short, indefinite, transversely undulating lines, the pubescence irregular, with small glabrous spots, apex of each elytron rounded; body beneath and legs with much closer pubescence, the former with numerous glabrous points; antennæ about as long as the body, the third and fourth joints equal, or nearly so, and unarmed. Length 10 lines.

Resembles a small narrow example of *P. obscurus*, Fab.; but, besides the absence of tubercles on the prothorax, puncturing, &c., it will be distinguished by the fourth antennal joint scarcely shorter than the third, and the absence of the apical spine. These two characters, indeed, might be considered sufficient to justify their generic separation, were it not that the two species have precisely the same habit.

*Phacodes fuscus.*

*P.* fuscus, sparse setulosus; prothorace crebre reticulato-punctato; elytris setulosis, vix pubescentibus, apice singuli rotundatis.

*Hab.* South Australia (*Mr. Odewahn*).

Resembles the last in most of its characters, but is scarcely pubescent; and the prothorax is so closely and deeply punctured that the intervals have a completely reticulated appearance, very different from *P. elusus*. Length 10 lines.

*Phacodes distinctus.*

*P.* fusco-brunneus; prothorace glabro, creberrime punctato; elytris disperse pubescentibus, fulvo biplagiatis, apice rotundatis.

*Hab.* South Australia (*Mr. Bathurst*).

Dark reddish brown; head rugose, with scattered greyish hairs;

prothorax nearly glabrous, a little longer than broad, the middle portion of its sides somewhat parallel, pitchy brown under the lens, very closely punctured, the intervals here and there raised into short, irregular lines having an oblique direction, the centre of the disk with a narrow, smooth, longitudinal line; scutellum nearly cordate; elytra closely and rather coarsely punctured, clothed with short, stiffish, grey hairs at short intervals, a large, oblong, fulvous patch from the base to near the middle, and another at the apex, the two feebly connected along the suture, the apex rounded; body beneath and legs brownish fulvous, shining, with scattered greyish hairs; antennæ shorter than the body, the third joint longer than the fourth, and the latter shorter than the fifth. Length 8 lines.

The form of the prothorax and the fulvous patches on the elytra will at once distinguish this species.

*Sophron eburatus.*

*S.* rufo-brunneus, glaber; elytris fortiter punctatis, vitta basali, altera laterali et maculis posticis flavo-eburatis.

*Hab.* South Australia (*Mr. Odewahn*).

Reddish brown, free from pubescence, except a few small, whitish setæ posteriorly; head and prothorax covered with shallow, very closely arranged punctures; scutellum rounded, dark brown, slightly concave; elytra closely and rather coarsely punctured, the apex of each somewhat acutely pointed; a narrow longitudinal line at the base, another laterally in a line with the shoulder, and a few spots, very nearly united, posteriorly, lemon-yellow, raised above the rest of the derm, and of an ivory-like texture; body beneath, tips of the femora, tibiæ, and tarsi more or less brown, the rest of the femora reddish luteous. Length 6 lines.

Differs from *Sophron inornatus*, Newm., in colour, strong puncturing of the elytra, with their acute apices, and the ivory lines, which, to a certain extent, replace the hairy lines of the former species.

## EXPLANATION OF PLATE XVI.

Fig. 1. *Chaodalis Macleayi.*
„ 2. *Excæreta unicolor.*
„ 3. *Æsiotyche favosa.*
Fig. 4. *Iphiastus heros.*
„ 5. *Lysestia rotundicollis.*
„ 6. *Aposites macilentus.*

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N.B.—At Plate XV. vol. i. of this work, the numerals attached to the *side* figures have been reversed in printing, without its having been perceived by the author whose paper they illustrate; figs. 3 & 2 and 6 & 5 should, therefore, be transposed. We are indebted to Dr. Gerstaecker (Bericht, &c., 1865) for pointing out the error.—Ed.

# JOURNAL OF ENTOMOLOGY.

No. XIII.—November, 1865.

## XXVII.—*An Examination of the* Halticidæ *of South America.*

By the Rev. Hamlet Clark, M.A., F.L.S.

I have spent part of my short autumn holiday in the revision of my notes on the Dejean genera and other new forms of Halticidæ found in South America. As a rule, the groups formed by Dejean and Chevrolat in the 3rd edition of the Catalogue are natural, and for the most part good. It has appeared to me that the confirmation of old recognized names is so preferable to the creation of new ones, that it may be worth while to send the results of my investigations to the Editor of the 'Journal of Entomology.' In the following pages I have sought to establish the Dejean nomenclature, and have ventured in addition to introduce new genera, based on forms in my collection which have more recently been sent over by collectors. In my examination of the collections which I received from the Marquis La Ferté, M. Chevrolat, and M. Thomson I have been specially struck by one result of my inquiry; that is, the remarkable concurrence of testimony which these collections offer, not only as to the fixity of the Dejean genera, but even with regard to the identity of the several species. It is the fashion to some degree now a days to decry manuscript names, as being an unmitigated evil; I have no special love for them; I cannot appreciate the usage which obtains among our continental friends of affixing to every species some name before it is admitted into the cabinet; but, on the other hand, there are instances, and the case before us is one,

where manuscript names, generic and specific, have been our only guiding beacons, and where, moreover, they have faithfully guided us. Tradition has a certain real value; if it cannot be compared with the precision of written description, certainly it is far better than chaos; and in chaos many groups of Coleoptera would have been, without the assistance which for many years has been afforded by the tradition of Dejean's Catalogue.

I ought to mention that Erichson has described (Wieg. Arch. 1847) among his genera of South American Halticidæ two genera which I am not able to determine—Palopoda (p. 171) and Oenoscelis (p. 174); the former of the *Œdipodes* of Illiger, the latter nearly related to *Asphæra* and *Aspicela* of Dej. and of this paper.

The following list includes all the Dejean genera of South American Halticidæ (edition 3, 1837):—

Octogonotes (p. 407), with following genera to Dasymallus. See British Museum Catal. Halticid., part 1.

Œdionychis, Latr. See Journ. Entom. vol. ii. p. 165 *et seq.*

Ptena, Chevr. See Journ. Entom. vol. ii. p. 172 *et seq.* (*Omophoita*).

Omophoita, Chevr.=*Ptena*, Chevr.

Asphæra, Chevr. Characterized in this paper.

Aspicela, Dej. Characterized in this paper.

Litosonycha, Chevr. Characterized in this paper.

Leiopomis, Dej. Belonging to the Œdionychis group.

Axiotheata, Chevr. Since characterized by Mr. Baly under the name of *Sophræna*, Trans. Ent. Soc. 1865, p. 342.

Cæporis, Dej. Characterized in this paper.

Graptodera, Chevr. Auctorum.

Clamophora, Chevr. Characterized in this paper.

Diphaulaca, Chevr. Characterized in this paper.

Oxygona, Chevr. Characterized in this paper.

Romalocera, Dej. Characterized by Mr. Baly under the name of *Phrynocepha* (Journ. Entom. June 1861, p. 201).

Monomacra, Chevr. Characterized by Dr. Erichson (Consp. Ins. Peru) under the name of *Lactica*; and more recently by Mr. Baly (Journ. Ent. 1862, p. 458, plate xxi. fig. 6, *not* fig. 7) under the name of *Camœna*.

Strabala, Chevr.=*Lactica*, Er.

Lacpatica, Chevr.=*Lactica*, Er.

Cacoscelis, Chevr. Characterized in this paper.

Disonycha, Chevr. Characterized in this paper.

Systena, Chevr. Characterized in this paper.

Crepidodera, Chevr. Auctorum.
Phyllotreta, Chevr. Auctorum.
Aphthona, Chevr. Auctorum.
Teinodactyla, Chevr. Now more properly *Longitarsus*, Latr. Fam. Nat. Ins. 405 (1825). *Thyamis*, Steph. Illust. Brit. Ent. (1831).
Dibolia, Latr. Auctorum.
Psylliodes, Latr. Auctorum.
Plectroscelis, Chevr. Auctorum.
Balanomorpha, Chevr. Now *Mantura*, Steph.
Podagrica, Chevr. Auctorum.
Notozona, Chevr. Characterized in this paper.

Before proceeding to a more complete examination of the following genera, it may be useful to arrange them tabularly, affixing to each a brief note of their respective special characters. The present paper deals with the following genera:—

Asphæra. Sides of thorax rounded and broadly marginate, anterior angles produced in front, not laterally; of the antennæ the 3rd, 4th, and 5th joints are subequal; the unguiculi are simple or appendiculated.

Aspicela. As in *Asphæra*, the unguiculi being almost bifid. This may be only a Columbian form of *Asphæra*.

Litosonycha. Thorax rectangular, the sides of the thorax straight and narrowly marginate; the other characters as in *Asphæra*.

Sophræna. Form ovate; antennæ short and incrassate, the 1st and 11th joints being alone elongate.

Clamophora. Closely allied to *Aspicela*; thorax smaller; elytra more ovate; palp., max., and antennæ also differ.

Pedilia. Form ovate, very depressed; antennæ incrassated, joints 1 and 3 elongate; post. femora short and very thick.

Ora. Ovate, very depressed; post femora short and very thick.

Cyrtosphærus. Rotundate; antennæ incrassate, joints 1 and 3 elongate.

Diphaulaca. Thorax narrower than elytra, sides rotundate, base with transverse fovea; antennæ with joints 3–5 subequal; max. palpi, terminal joint produced.

Psilapha. Parallel, robust; thorax large and foveolate at base; anterior femora incrassated.

Oxygonus. Thorax with post. angles rounded and marked with a small projection or elbow; elytra not punctate-striate; antennæ with joints 3–11 elongate and subæqual.

Rhopalotoma. Form depressed; antennæ filiform; anterior tibiæ incurved.

Lactica. Short, subovate; thorax subrectangular, base transversely foveolate; antennæ, 3rd joint scarcely longer than the second.

Tenosis. Elongate; antennæ filiform; post. femora with inner medial angle.

Cæporis. Parallel; thorax transverse and foveolated at the base. Allied to *Cacoscelis*.

Pelonia. Oval; thorax rectilateral, with the anterior angles somewhat rounded; elytra thickly punctate; antennæ filiform, joints 4–6 subequal.

Disonycha. Parallel; thorax transverse and nearly as broad as elytra, sides depressed; antennæ with joints 4–7 subequal; unguiculi simple.

Systena. Parallel; thorax acute-angled and quadrate, not so broad as elytra; elytra punctate (rarely punctate-striate); antennæ with joints 4 and 5 subequal, 3 being shorter; unguiculi appendiculated.

Cacoscelis. Parallel; thorax narrower than elytra, sides not depressed; unguiculi appendiculated.

Caloscelis. Short, robust; antennæ filiform; post. legs very elongate.

Notozona. Subparallel; thorax broad; elytra punctate-striate.

Asphæra, Dej., Aspicela, Dej., and Litosonycha, Dej.

These genera have one character in common, which separates them from the several forms which I have—whether rightly or not—united under the genera Œdionychis, Ptena, &c. (Journ. Entom. vol. ii. p. 165 *et seq.*). These latter have all of them either a globular inflation above the posterior claw, or at all events the claw is (at the base of the two apical teeth or joints) considerably thickened. In these three genera before us the claw is more or less simple, while in all other respects, form, coloration, and size, the species composing them perfectly assimilate Œdionychis. The number of species which possess this simple claw is, compared with that of the former group, wonderfully small; of the inflated-claw group I have registered in the 'Journal of Entomology' 449 species, and subsequent additions to my collection will add at least fifty to that number; of these three remaining simple-clawed genera the exponents cannot number above thirty species. Now, with reference to the grouping of this small residuum, that is, these three genera, Asphæra, Aspicela, and Litosonycha, I think that it will be convenient that Dejean's

arrangement—and if so, of course his nomenclature—should stand. The distinguishing characters that divide them are unimportant; but they *are* characters, and characters, however feeble, if associated with well established names in the vast ocean of Phytophagisms, deserve to be perpetuated as assisting beacons. Thus Asphæra and Aspicela seem to have almost every character in common: the form of the thorax is identical; the sides are rounded and broadly and shallowly margined, and the apical angles are produced, directed forwards, not laterally, and generally acute, the front of the thorax having generally a somewhat less breadth than the base. All the species of Asphæra that I know come from Brazil; all of Aspicela from Columbia or the regions adjoining. In Aspicela, however, the claw is almost bifid, in Asphæra it is either entirely unarmed or at most appendiculated; geographically, however, Aspicela will represent the large Columbian forms of the more southern Asphæra. Litosonycha has a thorax which is quite distinct; it is more rectangular, more quadrate, the sides are straight, not rounded, the margination is narrow and sharply defined, not broadly splayed, and the anterior angles are less prominent and directed rather laterally than forward.

The following diagnosis will point out the differing characters:—

Asphæra, Aspicela, Litosonycha.

*Caput* verticale vel declive, breve, vix productum. *Palpi maxillares* art. penultimo robusto, ultimo brevi. *Scutellum* triangulare. *Elytra* ovata thorace ampliora, plerumque late marginata et levissime punctata, sed interdum in genere Aspicela vehementer rugosa. *Antennæ* filiformes, art. 3o, 4o, et 5o subæqualibus. *Thorax* in

Asphæra transversus, angulis anticis prominentibus et porrectis, lateribus rotundatis et late marginatis;

Aspicela idem ac *Asphæra*;

Litosonycha transversus, rectangularis, lateribus rectis et leviter marginatis, angulis anticis brevibus. *Pedes* satis graciles, unguiculis in

Asphæra bifidis vel penitus bifidis,

Aspicela appendiculatis,

Litosonycha appendiculatis.

## Genus Asphæra.

Of the many species which I have received as belonging to this genus I have been able to retain only two or three, the majority of reputed representatives being, in my opinion, examples of *Ptena* (or *Omophoita*); the passage in truth between the two genera (as

between *Ptena* on the other side and *Œdionychis*) is somewhat arbitrary.

*Asphœra decipiens.*

*A.* ovalis, punctata, flavo-fusca, antennis, tibiis, et tarsis nigris: *caput* inter oculos transverse foveolatum, impunctatum: *thorax* impunctatus: *elytra* crebre sed minute punctata: *antennæ* nigræ: *pedes* nigri femoribus rufo-flavis: *corpus subtus* rufo-flavum.

Long. corp. lin. 3, lat. lin. $1\frac{1}{5}$.

Brazil.

*Asphœra fallax.*

*A.* ovalis, nigra, thorace et fascia latissima elytrorum rufo-flavis: *caput* super antennarum basin transverse foveolatum, sparsim sed fortiter punctatum, nigrum: *thorax* late marginatus, impunctatus, rufo-flavus: *elytra* impunctata, nigra disco medio transverse rufo-flavo, hæc fascia apud marginem usque ad humerum, et penitus ad apicem extendit: *antennæ* nigræ: *corpus subtus* et *pedes* nigri.

Long. corp. lin. $4\frac{1}{2}$, lat. lin. $3\frac{3}{4}$.

Brazil.

*Asphœra subfasciata.*

*A.* ovalis, subtiliter punctata, flava, fasciis elytrorum tribus pallide flavis: *caput* inter oculos in forma literæ T foveolatum, rufo-flavum: *thorax* rufo-flavus impunctatus: *elytra* subtiliter punctata, late marginata, fasciis tribus (ante-media, media et basali) æqualibus transversis tenuibus flavis: *corpus subtus*, *antennæ*, et *pedes* rufo-flavi.

Long. corp. lin. $2\frac{3}{4}$, lat. lin. $1\frac{1}{2}$.

Para, Amazon. Taken by Mr. Bates.

*Asphœra marginata.*

*A.* subparallela, elytris leviter punctatis, flava, elytris (marginibus exceptis) nigro-violaceis: *caput* et *thorax* impunctati: *scutellum* rufo-flavum: *elytra* parallela levissime punctata, nigro-violacea, marginibus usque ad apicem flavis: *antennæ* flavæ: *corpus subtus* rufo-flavum: *pedes* flavi genubus fusco flavis.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

Ega, Amazon. Taken by Mr. Bates.

Genus Aspicela, Dej.

Four species of this genus have been described by Latreille (Humboldt, Voy. Zool. p. 43, &c., plates 33 and 34), *A. cretacea*, *A. unipunctata*, *A. albomarginata*, and *A. scutata*. The following species also have been described by Guérin (Catal. Coleopt. Osculati Verhandl. 1855, p. 609): *A. Osculatii*, *A. rugosa*, *A. Bourcieri*, and *A. nigro-viridis*.

The two following are among the undescribed species in my collection:—

*Aspicela Balyii.*

*A.* ovalis, punctata, luteo-albida, aliquando sutura et marginibus elytrorum tenuissime nigris: *caput* super antennarum basin transverse foveolatum, punctatum, nigrum: *thorax* impunctatus albidus (macula interdum media fuscescenti): *scutellum* impunctatum nigrum vel nigro-fuscum: *elytra* late ovalia, crebre punctata, albida vel luteo-albida, aliquando vel basi vel marginibus vel sutura tenue nigris: *antennæ* nigræ; *corpus subtus* et *pedes* nigri.

Long. corp. lin. 4, lat. lin. 2.

*A. Balyii* will, by reason of its pale coloration, stand next to *A. cretacea*, Latr. Humb. Ins. ii. 51, and *A. Osculatii*, Guér. Catal. Coleopt. Osculati. Verhandl. 1855, p. 609; it is abundantly distinct from both, and would appear to be not at all an uncommon species in Columbia.

I have pleasure in naming this species after my friend Mr. Baly, whose long continued studies and perseverance constitute him a very valued coadjutor in the examination of Phytophaga.

*Aspicela discoidalis.*

*A.* lata, subparallela, pallide viridis, elytris ad medium fortiter virescentibus, forma et facie *A. albomarginatæ*, Latr.: *caput* punctatum nigrum: *thorax* lævis impunctatus pallide viridis: *elytra* apud discum vehementer rugosa marginibus lævioribus fortiter viridibus margine utrinque late pallide viridi: *pedes*, *antennæ*, et *corpus subtus* nigri.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

This species in pattern resembles exactly *A. albomarginata* of Latreille. The colours, however, are essentially different—green margin of elytra and thorax instead of white, and dark green disk of elytra instead of brilliant blue; the rugosities also of the elytra are not so coarse and prominent.

New Granada.

*Litosonycha nigripennis.*

*L.* flava, elytris nigris margine tenui flavo: *caput* et *thorax* impunctati: *scutellum* impunctatum, flavum: *elytra* lævissima nigra, margine tenui versus apicem latiori flavo: *antennæ*, *corpus subtus*, et *pedes* flavi.

Long. corp. lin. $3\frac{1}{5}$, lat. lin. $1\frac{4}{5}$.

Nearly allied to *L. marginata*, but more parallel, less broad, and the margins of the elytra more narrowly flavous.

Amazon, Santarem. Taken by Mr. Bates.

*Litosonycha adumbrata.*

*L.* subparallela, rufo-flava, thorace flavo, elytris ad medium flavis: *caput* breviter longitudinaliter foveolatum, rufo-flavum: *thorax* impunctatus flavus: *scutellum* rufo-flavum: *elytra* subparallela, subtilissime punctata, flava marginibus undique latius ad basin rufo-fusco adumbratis: *pedes* et *corpus subtus* rufo-flavi: *antennæ* rufo-fuscæ.

Long. corp. lin. $3\frac{1}{5}$, lat. lin. $1\frac{4}{5}$.

New Granada.

*Litosonycha quadri-maculata.*

*L.* flava, maculis in elytris quatuor magnis purpureo-nigris: *caput* et *thorax* impunctati: *scutellum* rufo-flavum: *elytra* subtiliter punctata, flava, maculis quatuor purpureo-nigris, una utrinque basali alteraque apicali, magnis insulatis: *pedes* rufo-flavi: *antennæ* rufo-flavæ: *corpus subtus* flavum.

Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

Amazon, Santarem. Taken by Mr. Bates.

*Litosonycha bifasciata.*

*L.* flava, elytris flavo-rufis flavo notatis: *caput* ad frontem longitudinaliter foveolatum, rufo-flavum: *thorax* impunctatus, flavus; *scutellum* rufo-flavum: *elytra* subtiliter punctata, rufo-flava, fascia media (transversa æquali) fascia apicali et macula basali juxta scutellum flavis: *antennæ* rufo-flavæ: *corpus subtus* et *pedes* flavi.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{3}$.

Ega, Amazon. Taken by Mr. Bates.

Genus Sophræna, Baly, Trans. Ent. Soc. Lond. 1865, 342.

*Axiotheata* (Chevr.), Dej. Cat.

Breviter ovalis, subcircularis, depressa. *Caput* verticale, satis breve. *Palpi maxillares* attenuati, art. penultimo tenui cylindrico, art. apicali acuminato. *Thorax* transversus elytra latitudine penitus æquans, angulis anticis et posticis subrotundatis, margine anteriori transverso, postico subarcuato, lateribus rotundatis et marginatis; thorax declivis, lævis. *Scutellum* triangulare satis magnum. *Elytra* breviter ovata, depressa, confuse et subtiliter punctata. *Pedes* robusti, breves; *tibiis* posticis elongatulis; *tarsorum* articulis brevibus, unguiculis simplicibus. *Antennæ* breves, robustæ, incrassatæ, art. 4°, 5°, et 6° secundo æqualibus.

This genus, Sophræna, may readily be distinguished from Medonia by its less circular, more ovate form, by the somewhat greater length of its posterior tibiæ, which are not so robust, by its antennæ not filiform, but short and incrassated, and by its simple unguiculi, as well as by the form of its maxillary palpi; from Cyrtosphærus it

differs in its very much smaller size, its attenuate palpi, the form of the antennæ, which are not so robustly incrassated (the joints 4–7 being subattenuate), and by its less robust and more elongate legs.

*Sophræna fasciolata.*

*S.* breviter ovalis, impunctata, flavo-rufa, thorace, tibiis posticis, elytrorum apice (late) et fascia transversa media lata nigris: *caput* rufo-flavum macula insulata ad basin utrinque nigra: *thorax* declivis, niger vel rufo-niger, angulis anticis rufo-tinctis: *scutellum* triangulare, rufo-fuscum: *elytra* lata, flavo-rufa, fascia lata æquali media, et basi late nigris: *antennæ* in exemplo unico desunt: *pedes* rufo-flavi, tibiis posticis nigris: *corpus subtus* flavum.

Long. corp. lin. $2\frac{4}{5}$, lat. lin. 2.

I received a single example of this handsome species from the Marquis La Ferté's collection, who received it from Cayenne.

*Sophræna simplex.*

*S.* flavo-ferruginea, subtiliter punctata: *caput* inter oculos transverse et arcuate foveolatum: *thorax* margine anteriori subtilissime marginatus, impunctatus: *elytra* brevia, parallela, depressa, subtiliter et confuse punctata: *pedes* et *corpus subtus* rufo-flavi: *antennæ* fuscæ, art. 1–6° flavis vel flavo-adumbratis.

Long. corp. lin. $3\frac{1}{3}$, lat. lin. $1\frac{2}{3}$.

Taken by Mr. Bates at Santarem, Amazons; and also received by M. Chevrolat from Villa Nova.

Genus Clamophora, Dej. Cat.

Generi *Aspicelæ* approximans, sed certe distincta, magis ovata, latior. *Caput* breve. *Palpi maxillares* elongatuli articulo, ultimo vix brevi robusto sed elongatulo. *Thorax* brevis subtransversus, elytris multo minor, lateribus subrotundatis et late marginatis, angulis anticis subacutis haud versus caput sed ad latera tendentibus, basi sinuato, vix foveolato. *Scutellum* elongato-triangulare. *Elytra* lata, ad medium ampliata, apice paulum producta, crebre et confuse punctata. *Antennæ* satis graciles, filiformes, art. 3–6° æqualibus. *Pedes* graciles, unguiculis appendiculatis.

From *Aspicela* this genus is readily separated by its more elongate maxillary palpi, its somewhat more slender antennæ, its much smaller thorax, and its more ovate, less parallel elytra; it is broader also in proportion, less parallel than *Litosonycha*, its thorax is differently shaped, being less quadrate, and its sides more constricted in front.

*Clamophora generosa*, Dej. Cat.

*C.* nigra, elytris nigro-cyaneis: *caput* super oculos arcuate foveolatum, impunctatum: *thorax* crebre et confuse punctatus (punctis modicis, æqualibus): *scutellum* impunctatum: *elytra* confuse et fortiter punctata: *corpus subtus, pedes,* et *antennæ* nigræ.

Var. A. Capite rufo-fusco.

Var. B. Capite et thorace rufo.

Long. corp. lin. 4, lat. lin. $2\frac{1}{4}$.

Brazil.

*Clamophora sanguinicollis* (Dej. Cat.).

*C.* cæruleo-nigra, prothorace rufo-sanguineo: *caput* super oculos transverse foveolatum, impunctatum: *thorax* ad basin obsolete et transverse depressus, subtiliter et sparsim punctatus: *scutellum* impunctatum nitidum: *elytra* leviter et confuse punctata: *pedes* et *corpus subtus* nigri: *antennæ* nigro-fuscæ, art. 1–3° flavo-fuscis.

Long. corp. lin. $4\frac{1}{2}$, lat. lin. $2\frac{3}{5}$.

*C. sanguinicollis* may be separated from var. B. of *C. generosa* by the more minute punctures of the elytra.

Brazil. From the collection of M. Chevrolat.

*Clamophora clypeata*, Chevr. (Dej. Cat.).

*C.* late ovalis, nigra, vel nigro-violacea: *caput* super oculos transverse foveolatum, subtiliter punctatum: *thorax* ad basin transverse depressus, subtiliter punctatus: *scutellum* impunctatum: *elytra* subtiliter punctata: *pedes, antennæ,* et *corpus subtus* nigri.

Long. corp. lin. $3\frac{1}{4}$, lat. lin. 2.

*C. clypeata* may be distinguished from *C. generosa* by its much smaller size, its comparatively greater breadth of elytra, and the more minute punctures of the thorax.

Brazil.

Genus Pedilia, Clark.

Circularis, subdepressa. *Caput* breve, depressum; *oculis* excavatis. *Palpi maxillares* art. penultimo valde incrassato, apicali brevi triangulari. *Thorax* late transversus, margine antico sinuato-emarginato, lateribus antice rotundatis valde marginatis, angulis posticis acutis, margine postico arcuato et subtiliter marginato. *Scutellum* triangulare. *Elytra* rotundata, humeris paulum ampliatis, brevia, confuse punctata. *Antennæ* filiformes elongatulæ, art. 1° subincrassato, art. 2° brevi et minuto, art. 3 6° subæqualibus, art. 7–11° brevioribus. *Pedes* robusti; *tibiis* posticis fortibus, subincurvatis et apice ab inferiori parte dente brevi armatis; *tarsis* brevibus, art. 2° minuto, unguiculis utrinque bidentatis.

*Pedilia rufa.*

*P.* circularis, subdepressa, flava, vel rufo-flava: *elytra* confuse punctata: *antennæ* graciles, art. 7–11° infuscatis.

Long. corp. lin. 2, lat. lin. $1\frac{3}{4}$.

Taken in the neighbourhood of Para by Mr. Bates.

Genus Ora.

(Dej. in litt., haud in Dej. Cat.)

Ovalis, fortiter depressa et a latere visa tenuissima. *Caput* subporrectum vix productum, transversum. *Thorax* transversus latere antico emarginato, sed apud medium ampliato, i. e., fortiter transverse sinuato, lateribus obliquatis, plus minus marginatis, basi sinuato et marginato ad medium versus scutellum ampliato; thorax lævis punctatus. *Scutellum* late triangulare punctatum. *Elytra* depressa, post medium latiora, apud apicem paulum producta, fortiter et confuse punctata. *Antennæ* filiformes, art. 2° et 3° brevibus et subæqualibus. *Pedes* femora postica brevia et valde robusta; tibiis inermibus.

I have two species, one from Rio, the other from Mexico, which constitute this genus; the form is peculiarly flattened, and the insects are specially fragile; its ovate depressed form, thorax medially rounded, both in the direction of the head and also of the scutellum, robust and short posterior femora, and the short third joint of the elytra abundantly separate it from all other groups.

*Ora Grayii.*

*O.* flava, elytris fusco-brunneis, flavo-notatis: *caput* punctatum: *thorax* leviter punctatus, pallide flavus ad medium basin fusco adumbratus: *scutellum* nigro-fuscum: *elytra* crebre punctata, fusco-brunnea, sutura, vitta media a basi ad apicem, et margine tenuiter flavis, fascia etiam ante-media subobliqua a lateribus ad suturam: *corpus subtus, pedes,* et *antennæ* flavi.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{2}$.

I dedicate this species to my friend John Gray, Esq., as one of the many fruits of our rambles together in South America. Taken by Mr. Gray at Constancia, Rio Janeiro, Jan. 1857.

*Ora Chevrolatii.*

*O.* rufo-brunnea, flavo-maculata: *caput* et *thorax* fortiter et crebre punctati, rufi: *scutellum* punctatum nigrum: *elytra* rufo-brunnea, margine sutura et vittis 4-utrinque interruptis parallelis flavis, basis etiam (latius) fascia post medium (vix suturam attinens) et fascia apicalis

(inæqualis, vix margines attinens) flavæ: *antennæ, pedes,* et *corpus subtus* rufo-flavi.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{3}$.

Mexico. From the collection of M. Chevrolat.

## Genus Cyrtosphærus, Clark.

Breviter ovatus, rotundatus, depressus, e majoribus. *Caput* proclive, breve. *Palpi maxillares* breves, art. penultimo robusto, brevi, art. ultimo triangulari breviter acuminato. *Antennæ* breves, incrassatæ, articulo basali elongato, 2° brevi, 3° secundo longiori, tenuiori, 4–11° brevibus modice incrassatis. *Thorax* transversus, late rotundatus, angulis anterioribus et posticis vix prominulis, margine anteriori paulum emarginato, lateribus subrotundatis et marginatis, basi subsinuato. *Scutellum* triangulare. *Elytra* brevia rotundata, subdepressa. *Pedes* robusti; *unguiculis* simplicibus.

### *Cyrtosphærus ferrugineus.*

*C.* ferrugineus: *caput* super antennarum basin transverse subcarinatum, læve, pallide flavum: *thorax* impunctatus, lævis, ferrugineus marginibus tenuiter fuscis: *scutellum* triangulare, læve: *elytra* lata, depressa, subtilissime punctata, ferruginea juxta margines et suturam pallidiora, marginibus tenuiter fuscis: *pedes* ferruginei genibus breviter fuscis: *corpus subtus* ferrugineum: *antennæ* rufo-ferrugineæ, art. 7–11° nigris.

Long. corp. lin. $3\frac{3}{4}$, lat. lin. $2\frac{4}{5}$.

Amazon, Para. Taken by Mr. Bates.

## Genus Diphaulaca, Chevr.

(Dej. Cat. D'Orb. Dict. Univ. H. Nat. v. 46).

Ovata, vel interdum subparallela, satis robusta, elytris plerumque punctato striatis. *Caput* penitus verticale, breve. *Palpi maxillares* articulo ultimo, producto et acuminato. *Thorax* transversus, elytris angustior, angulis anticis mucronatis, lateribus rotundatis et late marginatis, basi fovea transversa vix latera attinenti. *Scutellum* triangulare. *Elytra* thorace latiora, pone medium plerumque paulum ampliata, ad apicem rotundata, ad latera marginata. *Antennæ* filiformes, art. 1 elongato, apice incrassato ad basin plerumque constricto, 2° brevi, 3°, 4°, et 5° subæqualibus. *Pedes*, tarsis posticis ad apices tibiarum insertis; *unguiculis* intus utrinque dente brevi armatis.

### *Diphaulaca sulcata.*

*D.* nigra, elytris viridi-nigris: *caput* super antennarum basin transverse foveolatum, impunctatum: *thorax* lævissime punctatus: *scutellum* læve: *elytra* undecim carinis obsoletis utrinque ornata, interstitia depressa et fortiter punctata: *pedes, antennæ,* et *corpus subtus* nigri.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

A common species near Rio Janeiro, and probably in other parts of Brazil.

*Diphaulaca viridipennis.*

*D.* lata, ovata, subtilissime punctato-striata, rufa, elytris viridibus nitidis: *caput* impunctatum rufum: *thorax* lateribus distincte marginatis impunctatus rufus: *scutellum* triangulare rufum: *elytra* ovata, satis depressa, subtiliter striato-punctata, punctis interdum vix ordine dispositis: *corpus subtus* rufum: *pedes* rufi; *tarsi* nigro-fusci: *antennæ* rufæ.

Long. corp. lin. $2\frac{3}{4}$, lat. lin. $1\frac{1}{4}$.

Taken by Mr. Bates at Ega and also at Santarem, Amazons.

*Diphaulaca costulata.*

*D.* parallela, rufa, elytris punctatis subcostatis: *caput* inter oculos quasi bituberculatum: *thorax* ad latera sparsim punctatus: *elytra* parallela, satis depressa, punctata, costis obsoletis (levibus haud punctatis) ornata, inter costas puncta conferta haud ordinata minuta apparent, costæ versus latera evanescunt; *corpus subtus* rufum; *pedes* rufi; tibiæ tarsique nigri: *antennæ*, art. 1–3° rufi, 4° fusco, reliqui desunt.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{3}{4}$.

To be distinguished from its congeners by its somewhat greater breadth of thorax; in this respect it is allied to *D. punctata*, from which species it is separated by its obsoletely raised costæ on the elytra.

Brazil.

*Diphaulaca rubens.*

*D.* subparallela, striato-punctata, rufa: *caput* super oculos fovea veluti litera T ornatum: *thorax* angulis obsoletioribus, ad latera late marginatus: *scutellum* triangulare impunctatum: *elytra* parallela, satis elongata, striato-punctata, punctis crebris minutis nunc striato ordinatis nunc confusis: *corpus subtus* rufum: *antennæ* nigræ, art. 1–3° flavescentibus: *pedes* rufi; *tibiis* et *tarsis* nigris.

Long. corp. lin. $3\frac{3}{4}$, lat. lin. $1\frac{3}{4}$.

*D. rubens* may be separated from *D. costulata* and *D. contempta* by its even and unstriated elytra, from *D. punctata* by its regularly arranged striæ, and from all three by its greater size.

Brazil.

*Diphaulaca erythrodera*, Dej. Cat.

*D.* ovalis, punctata nigra prothorace rufo: *caput* ad frontem longitudinaliter carinatum, et super oculos transverse arcuatim foveolatum, impunctatum, rufum: *thorax* transversus, late marginatus ad latera, leviter punctatus: *scutellum* impunctatum rufum: *elytra* lata, crebre et

confuse punctata: *pedes* nigri femoribus anterioribus flavis: *corpus subtus* nigrum: *antennæ* nigro-fuscæ, art. 1–3 flavescentibus.
Long. corp. lin. $4\frac{1}{3}$, lat. lin. $2\frac{1}{2}$.

Brazil.

*Diphaulaca marginata.*

*D.* oblonga parallela, elytris subtiliter punctatis, flava, elytris marginibus exceptis nigris: *caput* breve, impunctatum, declive, flavum fronte nigro: *thorax* impunctatus flavus: *scutellum* fuscum: *elytra* parallela nitida, nigra, marginibus tenuiter et æqualiter flavis: *corpus subtus* et *pedes* flavi: *antennæ* flavo-fuscæ, articulis ultimis vel 8–11°, vel 9–11°, vel 10°, 11° albido testaceis.
Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

Ega, Amazon. Taken by Mr. Bates.

*Diphaulaca apicalis.*

*D.* oblongo-ovalis, confuse punctata, fusco-flava apicibus elytrorum nigro-maculatis: *caput* impunctatum flavum: *thorax* fovea transversa basali haud profunda, fusco-flavus: *scutellum* impunctatum: *elytra* penitus parallela, confuse punctata, macula utrinque apicali insulata nigra: *antennæ* fuscæ, art. 1–3° flavo-adspersis, art. 8–11° pallide testaceis: *pedes* et *corpus subtus* rufo-flavi.
Long. corp. lin. 3, lat. lin. $1\frac{1}{4}$.

Taken by Mr. Bates at Ega, Amazon.

*Diphaulaca nigro-apicata.*

*D.* oblongo-ovalis, punctato-striata, flava, elytrorum apicibus late nigris: *caput* inter oculos arcuate foveolatum: *thorax* impunctatus, vix ut in *D. dimidiata* latus, rectangularis: *scutellum* triangulare impunctatum: *elytra* haud parallela, ovalia, punctato-striata, interstitiis (præcipue versus latera) costatis: *antennæ* fuscæ, art. 1–3° flavis: *pedes* flavi: *corpus subtus* flavum, abdomine nigro-fusco.
Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{3}$.

*D. nigro-apicata* differs from *D. dimidiata* by the colour of the antennæ and of the abdomen, the smaller size of the thorax, and the peculiar costate markings on the elytra.

A single specimen of this distinct species was taken by my friend Mr. John Gray, at Petropolis, Rio Janeiro, on our visit to Brazil, in February 1857.

*Diphaulaca dimidiata.*

*D.* oblongo-ovalis, confuse punctata, flava, elytrorum apicibus late nigris: *caput* fovea transversa inter oculos, impunctatum: *thorax* latus, vix elytra latitudine æquans, subquadratus, impunctatus: *scutellum* trian-

gulare: *elytra* parallela, confuse punctata, flava, hemielytris apicalibus nigris marginibus tenuiter flavis: *pedes, antennæ*, et *corpus subtus* flavi.
Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{5}$.

*D. dimidiata* may readily be distinguished from the Rio Janeiro species *D. nigro-apicata*, which resembles it in colour: the antennæ are entirely pale, the thorax is relatively much broader, and the elytra are not punctate-striate, but confusedly punctate.

Guyana. From the collection of M. Chevrolat.

## Genus Psilapha, Clark.

Lata, satis depressa, parallela. *Caput* penitus verticale, vix productum. *Palpi maxillares* elongatuli, art. penultimo cylindrico, ultimo producto acuminato. *Antennæ* filiformes, elongatæ, art. 1 versus basin valde constricto, et ad apicem inflato elongato (art. secundum longitudine superanti), art. 2 brevi, art. 3 secundum articulum penitus triplo longitudine excellenti, reliqui fere æquales et art. 3 breviores; art. 3, et obsolete art. 4–7, ad apices inflati vel incrassati sunt. *Thorax* latus, elytra amplitudine penitus æquans, subquadratus, lateribus undique sinuatis et marginatis, ad basin fovea transversa vix margines attinet. *Scutellum* late triangulare. *Elytra* parallela robusta, post medium a latere visa paulum inflata, versus apicem subattenuata, marginata, striato-punctata. *Pedes* robusti, femora antica versus apicem valde incrassata, et margine inferiori fortiter emarginata; *tibiæ* anticæ paulum incurvatæ, et versus apicem incrassatæ, mediæ et posticæ rectæ; *tarsi*, art. 2ndo brevi triangulari, 3tio valde bilobo, 4to elongato; *unguiculi* ab inferiori parte dente brevi utrinque armati.

A very remarkable form, conspicuous at once by its strangely robust anterior femora, and also notable for its largely developed thorax, which is as broad as and more than one-third of the length of the elytra; the basal transverse groove of the thorax and its punctate-striate elytra will place this form next in order to *Diphaulaca*.

### *Psilapha flava.*

*P.* breviter parallela, punctato striata, flava: *caput* inter oculos foveola in forma W, et altera versus basin transversa arcuata, caput impunctatum: *thorax* margine laterali utrinque rugoso vel punctis obsoletis inæqualibus notato: *scutellum* impunctatum: *elytra* brevia versus apicem attenuatiora, striato-punctata, punctis sparsis et versus apicem obsoletis, nota utrinque transversa brevi post-media fusca: *pedes* flavi; *tarsis* fusco-flavis: *antennæ* fusco-flavæ, art. 1–3o flavis: *corpus subtus* flavum.
Long. corp. lin. $2\frac{3}{4}$, lat. lin. $1\frac{3}{4}$.

I have a single example of this species from the Marquis La Ferté's collection. New Granada.

Genus Oxygonus*.

Satis lata, subparallela, elytris plerumque lævibus, haud striato-punctatis. *Caput* penitus verticale breve. *Palpi maxillares* articulo ultimo subgloboso, parum cylindrico. *Thorax* transversus, elytris angustior, lateribus marginatis et rotundatis, et angulis posticis etiam rotundatis, angulis ipsis dente brevi vel tuberculo notatis, angulis anticis plerumque breviter prominulis, thorax ad basin vix transverse foveolatus. *Scutellum* triangulare. *Elytra* parallela, apice rotundato, punctata, haud striata. *Pedes* modice elongati; *unguiculis* dente brevi ad basin utrinque armatis. *Antennæ* filiformes, art. 1° elongato, 2° brevi, 3–11° secundo longioribus, subæqualibus.

*Oxygona acutangula*, Chevr. Col. Mex. l. c. fas. 3. 1.
*melanocera*, Klug, MSS.
*tarsalis*, Reiche, MSS.
Var. A. *denticollis*, Germar (MSS. ?).
*geniculata*, Dej. Cat. ed. 3. p. 413.
*tibialis*, Reiche, MSS.
*Baluaria*, Chevr. MSS.
*nigricornis*, Chevr. MSS.

*O.* parallelus, punctatus, flavus, antennis femorum apicibus tibiis tarsisque aliquando etiam abdominis apice nigris: *caput* super antennarum bases transverse et inæqualiter depressum, impunctatum, nitidum: *thorax* impunctatus, lævis, margine anteriori plus minus marginato: *scutellum* triangulare, impunctatum: *elytra* robusta, parallela, punctata, punctis aliquando obsoletioribus: *corpus subtus* pallide flavum, abdominis apice nigro-fusco: *pedes* pallide flavi, genubus tibiis tarsisque nigris: *antennæ* nigræ.

Long. corp. lin. $3\frac{1}{2}$–$3\frac{3}{4}$, lat. lin. $2\frac{3}{5}$–$2\frac{4}{5}$.

As will be evident from the synonymy, I have included as the representatives of one single species several slightly aberrant forms. *O. acutangulus*, Chevr., is found only in Mexico, where it is probably not uncommon; it is larger and of more pallid colour than its Brazilian representative, this is the *denticollis* of Germar, which I believe to be nothing more than a local variety; it is somewhat smaller, decidedly more rufous, the legs are generally entirely black, and the punctuation of the elytra is, in some examples, manifestly more coarse. I possess a specimen from Monte Video, and another labelled Cayenne, which are smaller in size. The species has (if I am right in my determination) a very extended range, being found from Mexico to the Plate River.

* I change Oxygona, *Chevr.*, into *Oxygonus*; the name Oxygonia having been more recently appropriated.—H. C.

*Oxygonus violaceipennis.*

*O.* rufus, punctatus, elytris nigris vel violaceo-nigris: *caput* inter oculos transverse foveolatum, nitidum, rufo-flavum: *thorax* impunctatus, rufus: *scutellum* triangulare impunctatum: *elytra* leviter punctata, violaceo-nigra marginibus tenuiter rufis: *pedes* (tibiis nigris) et *corpus subtus* rufo-ferruginei: *antennæ* rufo-fuscæ, art. 1–3 flavo-rufis.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{3}{4}$.

Brazil.

*Oxygonus interruptus.*

*O.* oblongus, parallelus, punctatus, niger, prothorace elytrorum maculis corpore subtus et pedibus flavo-rufis: *caput* inter oculos leviter transverse depressum, flavum, basi ad medium nigro-fusca: *thorax* impunctatus, flavus: *scutellum* triangulare, impunctatum, flavum: *elytra* leviter punctata, nigra, vittis utrinque duabus interruptis et macula insulata versus apicem flavis; vittæ inæquales longitudinaliter dispositæ insulatæ, macula brevis versus apicem haud suturam attinet: *corpus subtus* flavum: *pedes* flavi; *tibiæ* et *tarsi* nigra: *antennæ* in exemplo unico, eheu! desunt.

Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

*O. interruptus* is remarkable by the singular pattern of its elytra. On either side two irregularly formed and uneven flavous longitudinal markings occupy the apical portion, touching neither the suture, the base, nor the margin; near the apex is another shorter and insulated marking.

I have a single example from Cayenne, from the collection of M. Thomson.

*Oxygonus exornatus.*

*O.* parallelus, punctatus, niger, prothorace, antennarum basi, fascia media lata et marginibus elytrorum rufo-flavis: *caput* super antennarum bases transverse foveolatum, impunctatum, læve, rufo-flavum: *thorax* basi sed haud margine anteriore marginato, impunctatus, nitidus: *scutellum* impunctatum, flavum: *elytra* parallela, satis depressa, leviter punctata, nigra, fascia media lata et marginibus (tenuiter) rufis: *corpus subtus* nigrum: *pedes* nigri, anticis rufis: *antennæ* nigro-fuscæ, art. 1 et 2 flavis.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{4}{5}$.

*O. exornatus* approaches *O. succinctus*, but is in form decidedly narrower, and wants the medial frontal fovea of this latter species; the coloration also is different.

I possess an example from Brazil, from the collection of the Marquis La Ferté.

*Oxygonus succinctus*, Dej. Cat.

*O.* parallelus, robustus, rufus, elytrorum basi late et plaga utrinque maxima apicali nigris: *caput* super antennarum bases utrinque oblique foveo-

latum, ad frontem etiam fovea media; subtilissime punctatum: *thorax* lævis, margine anteriori et basi marginatis: *scutellum* triangulare nitidum, impunctatum: *elytra* robusta, subtiliter punctata, basi late et plaga maxima post media (hemielytron apicale occupante, subcirculari, haud margines attinente) nigris: *corpus subtus* rufo-flavum; metasterno fusco adumbrato: *pedes* rufo-flavi; *femoribus* posticis ad apices fuscis: *antennæ* fuscæ, art. 1 et 2 rufo-flavis.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{4}{5}$.

I received a specimen, in the Chevrolat collection, from Cayenne.

*Oxygonus rubidus.*

*O.* e majoribus, rubidus, pedibus nigris: *caput* super oculos utrinque oblique, et ad medium longitudinaliter foveolatum; puncta ad frontem sparsa apparent: *thorax* ad basin et antice marginatus: *scutellum* impunctatum: *elytra* lata, parallela, punctata: *corpus subtus* rufo-flavum: *pedes* nigri; femoribus basalibus rufo-flavis: *antennæ* nigræ, articulis apud apices flavo-annulatis.

Long. corp. lin. $4\frac{1}{5}$, lat. lin. $2\frac{1}{5}$.

*O. rubidus* is the largest known species of the genus; it is nearly allied to the widely distributed species *O. acutangulus*, Chevr., but may be distinguished from it by its larger size, its specially rufous coloration with black legs, as well as by the medial fovea and sparingly arranged punctures on the head.

I have a single example, captured by Mr. Bates at St. Paulo, on the Amazons.

*Oxygonus adumbratus.*

*O.* parallelus, robustus, flavus, elytris fusco-adumbratis: *caput* inter oculos utrinque oblique foveolatum, impunctatum: *thorax* impunctatus, ad basin et antice marginatus: *scutellum* impunctatum, flavum: *elytra* parallela, punctata (punctis minutis, et juxta apicem obsoletis), flava, maculis quibusdam incertis fuscis adumbrata: *corpus subtus* flavo-ferrugineum: *pedes* fusco-nigri; femoribus flavis: *antennæ* rufo-fuscæ, art. 1–3 rufo-flavis.

Long. corp. lin. 4, lat. lin. $1\frac{3}{4}$.

Nearly allied to *O. acutangulus*, but I believe a different species; the coloration is different, and the form somewhat more depressed; the markings on the elytra are irregular, and may be described as a dark ferrugineous shade or cloud over the whole of the middle of the elytra, which does not touch the margins; the thorax also is a trifle more transverse in form, and the whole body somewhat more elongate than that of *O. acutangulus*.

I have an example in my collection, captured by Mr. Bates at Tunantins, Amazon.

*Oxygonus nigripennis.*

*O.* rufus, elytris pedibusque (femoribus basalibus exceptis) nigris: *caput* inter oculos oblique et ad frontem medium longitudinaliter fortiter foveolatum ita ut frons bituberculatus apparet: *thorax* antice et ad basin marginatus, impunctatus: *scutellum* rufum: *elytra* satis lata punctata nigra nitida, marginibus tenuiter rufis: *corpus subtus* rufo-ferrugineum: *pedes* nigri; femoribus basalibus flavis: *antennæ* rufæ.
Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

The only species known to me, with the exception of *O. violaceipennis* of this paper, the elytra of which are black and immaculate: from this latter species it may be readily separated by the deep and conspicuous longitudinally fovea on its head.

Taken by Mr. Bates at Ega, Amazons.

*Oxygonus luridulus.*

*O.* oblongus, parallelus, punctatus, luride flavus: *caput* inter oculos transverse iterumque ad frontem longitudinaliter foveolatum, impunctatum: *thorax* impunctatus, flavus: *scutellum* fusco-flavum: *elytra* obsolete punctata, luride flava: *antennæ, pedes* et *corpus subtus* flava.
Long. corp. lin. $2\frac{3}{4}$, lat. lin. $1\frac{3}{5}$.

I cannot but regard this as a distinct species; it is closely allied to *O. simplex*, but differs in the medial frontal fovea, which is broad and short, and also in the distinctly more abrupt and prominent angles of the thorax.

Brazil. A single specimen from the collection of the Marquis La Ferté.

*Oxygonus simplex.*

*O.* parallelus, punctatus, pallide flavus: *caput* super antennarum basin oblique foveolatum, etiamque fovea ad medium brevis, profunda, longitudinalis: *thorax* angulis anticis et posticis vix ut in *O. luridulo* prominulis, impunctatus: *scutellum* impunctatum: *elytra* leviter punctata; *corpus subtus, antennæ* et *pedes* pallide flavi.
Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

Of an entirely pale flavous colour. To be separated from *O. luridulus* by the obsolete angles of the thorax, and by the absence of any medial fovea of the head: it is very nearly allied to *O. acutangulus*, Chevr., but is much smaller; the antennæ, always black in that species, are here pale flavous, and the medial marking on the head is of quite a different form; it is transverse and narrow, rather than short deep and broad as in that species.

Santarem, Amazon. Taken by Mr. Bates.

*Oxygonus fusco-maculatus.*

*O.* parallelus, punctatus, flavus, fusco-maculatus: *caput* super antennarum basin transverse foveolatum, impunctatum, flavum: *thorax* margine anteriore et postico tenue marginatis; impunctatus, flavus: *scutellum* impunctatum, flavo-fuscum: *elytra* punctata, flava, fusco-maculata, macula ad scutellum (oblonga, communis), ad humeros (marginalis, tenuis) pone humeros (insulata, parva) et juxta apicem versus marginem (arcuata): *pedes* et *antennæ* flavi: *corpus subtus* flavum; metasterno fusco.

Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

Taken by Mr. Bates at Santarem, Amazons.

*Oxygonus sex-notatus.*

*O.* parallelus, punctatus, flavus, elytris nigris, flavo-maculatis: *caput* inter oculos utrinque oblique foveolatum, fovea etiam media longitudinalis, sparsim punctatum, nigrum: *thorax* impunctatus, margine anteriore etiamque posteriore tenuiter marginatis, flavus: *scutellum* triangulare, impunctatum, læve, rufo-flavum: *elytra* parallela, punctata, nigra, flavo-maculata, macula utrinque juxta basin obliqua, altera pone medium transversa versus marginem deflecta, tertia juxta apicem insulata circularis: *corpus subtus* fusco-flavum: *pedes* flavi; tibiis tarsisque nigris: *antennæ* art. 1–3 fuscæ, e parte inferiori flavæ; articuli reliqui desunt.

Long. corp. lin. $2\frac{3}{4}$, lat. lin. $1\frac{1}{2}$.

I possess a single specimen, taken by Mr. Bates at Para.

Genus Rhopalatoma, Clark.

Elongato-ovale, depressum. *Caput* declive, vix productum. *Palpi maxillares* elongati, art. 2 et 3 cylindricis et apud apices subglobosis, art. 4 breviore acuminato. *Thorax* depressus, quadratus, vix elytra amplitudine æquans, angulis anticis prominulis et acutis, lateribus rotundatis et late marginatis, disco in specie unico crebre rugoso et inæqualiter tuberculato, vel interdum fortiter punctato. *Scutellum* triangulare, læve. *Elytra* haud parallela, apice rotundata, depressa, crebre punctata. *Antennæ* elongatæ, tenues, filiformes, art. basali producto et ad apicem subgloboso, art. 2 brevi, art. 4–11 subæqualibus. *Pedes* elongati; *tibiis* anterioribus subarcuatis; *tarsis* productis; *unguiculis* simplicibus ad basin appendiculatis.

*Rhopalotoma tuberculatum.*

*R.* depressum, rugosum, elytris crebre punctatis, rufo-brunneum: *caput* fronte rugoso, tuberculis duobus inter oculos tertioque medio versus frontem: *thorax* depressus, lateribus elevatis, apud discum utrinque elevatio circularis insulata obsoleta apparet (hæc elevatio aliquando evanescit), thorax crebre et fortiter punctatus: *scutellum* triangulare,

impunctatum: *elytra* depressa, crebre punctata: *pedes, corpus subtus* et *antennæ* rufo-brunnei.

Long. corp. lin. 3, lat. lin. 2.

New Grenada. From the collections of M. Chevrolat and the Marquis La Ferté.

*Rhopalotoma viridipenne.*

*R.* subparallelum, depressum, rufo-flavum, elytris viridibus: *caput* disco inter oculos subelevato et longitudinaliter ad medium foveolato, basi crebre punctulato: *thorax* subquadratus, lateribus valde marginatis, disco utrinque ad medium obsolete elevato, impunctatus: *scutellum* triangulare, læve, rufum: *elytra* parallela, punctata, punctis crebris magnis et confusis, valde marginata, quoad colorem viridia, marginibus rufis: *antennæ* rufo-fuscæ: *corpus subtus* rufo-flavum: *pedes* rufo-flavi, tibiis tarsisque fuscatis.

Long. corp. lin. $2\frac{3}{4}$, lat. lin. $1\frac{1}{4}$.

New Grenada. From the collection of the Marquis La Ferté.

Genus Lactica, Er. Consp. Ins. Peru; Wieg. Arch. 1847, 173.

*Camœna*, Baly, Journ. Ent. vi. 1862, plate 21. fig. 6 (*not* 7). *Monomacra*, Dej. Cat.

*Lacpatica*, Chevr. Dej. Cat. *Strabala*, Chevr.

Lata, parallela, brevis, elytris plerumque lævibus. *Caput* breve, sessile. *Palpi maxillares*, art. ultimo brevi et subgloboso. *Thorax* transversus, angulis distinctis et plerumque rectis, lateribus subparallelis et marginatis; ad basin fovea transversa profunda vix margines attinet. *Scutellum* triangulare. *Elytra* parallela, brevia, rarius striato-punctata. *Pedes* satis elongati; *unguiculis* penitus simplicibus, dente brevi minuto juxta apices (haud ad basin utrinque pertingenti). *Antennæ* filiformes, art. 1 elongato et ad apicem inflato; art. 2 brevi; art. 3 vix vel paulum secundum longitudine superante; art. 4–11 subæqualibus.

*Lactica quadrimaculata.*

*L.* pallide flava, elytris nigris maculis quatuor: *caput* impunctatum, nigrum: *thorax* impunctatus, lævis: *elytra* lævigata, parallela, flava, maculis quatuor magnis ornata, nigris insulatis ovalibus, una utrinque ad basin, alteraque ad apicem: *corpus subtus* flavum: *pedes* et *antennæ* omnino flavi.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{3}{4}$.

Nearly allied to *L. macula*, Fab. Syst. El. 491. 70 (=*quadrata*, Dej. Cat.), differing from it only in the colour of the legs and the much larger spots on the elytra. It is possible that it may be a local variety of *L. macula*, which is a common species at Rio Janeiro.

Ega, Amazons. Taken by Mr. Bates.

*Lactica azureipennis.*

*L.* lata, ovalis, elytris confuse et subtiliter punctatis azureis, flava: *caput* carina inter antennarum bases brevi longitudinali, impunctatum: *thorax* latus, transversus, fovea basali arcuata et profunda: *scutellum* triangulare, impunctatum: *elytra* lata, parallela, apice rotundata, confuse punctata, punctis minutis et versus apicem obsoletis: *antennæ* fuscæ, art. 1–5 plus minus flavis: *pedes* rufi: *corpus subtus* rufum.

Long. corp. lin. 3, lat. lin. $1\frac{4}{5}$.

S. Paulo, Amazons. Taken by Mr. Bates.

*Lactica tibialis*, Baly.

Journ. Ent. vi. 1862, pl. 31. fig. 6 (*not* fig. 7).

*Lactica violaceipennis* (Dej. Cat.).

*L.* rufo-flava, elytris nigro-violaceis: *caput* impunctatum, flavum: *thorax* angulis anticis prominulis, latus, transversus, rectangularis, fovea basali abrupto et profundo: *scutellum* triangulare, impunctatum, flavo-rufum: *elytra* robusta, parallela, brevia, confuse punctata, punctis plus minus minutis et versus apicem obsoletis: *corpus subtus* flavum: *pedes* flavi; tibiis tarsisque nigris: *antennæ* nigræ, art. 1 rufo-flavo, art. 9–11 albidis.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{3}{4}$.

I have received this species from Cayenne, Brazil, and Mexico, and have also captured it at Rio Janeiro; there is no difference whatever among the several examples, except in degree of punctuation of the elytra; one of my examples from Cayenne shows a tendency to rufous coloration at the apex of the elytra, and has the five instead of the three terminal joints of the antennæ white.

*Lactica marginata.*

*L.* lata, depressa, subtiliter punctata, flava, elytris (marginibus prætermissis) pedibusque nigris: *caput* impunctatum: *thorax* fovea basali haud profunda, impunctatus, flavus: *scutellum* rufo-flavum: *elytra* lata, subovata, subtiliter punctata, nigra, margine utrinque lato æquali rufo-flavo: *corpus subtus* rufo-flavum: *pedes* nigri: *antennæ* albido-testaceæ.

Long. corp. lin. 3, lat. lin. $1\frac{3}{4}$.

S. Paulo, Amazons. Taken by Mr. Bates.

*Lactica sponsa*, Dej. Cat.

*L.* párallela, flava, elytris cyaneis: *caput* super oculos oblique etiamque ad medium arcuate foveolatum, impunctatum: *thorax* fovea transversa basali profunda, impunctatus: *scutellum* impunctatum, flavum: *elytra* fortiter variolosa, punctis interdum confluentibus, cyaneis vel nigro-

cyaneis: *corpus subtus* flavum: *pedes* flavi; tibiis tarsisque nigris: *antennæ* nigræ, art. 1 interdum flavescente, et 10 et 11 albidis.
Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

There is some variation of colour in the antennæ of this species, occasionally the last joints of the antennæ are white.

Taken by Mr. Bates at Obydos, Amazons; received also from Cayenne and Brazil.

*Lactica basalis.*

*L.* lata, depressa, subtiliter punctata, rufo-flava, elytrorum basibus nigro-fuscis: *caput* haud foveolatum, impunctatum: *thorax* fovea basali lata et profunda, impunctatum: *scutellum* flavum: *elytra* lata, subtiliter punctata, rufo-flava, plaga maxima utrinque ad basin subquadrata basin sed neque suturam neque marginem attinente, nigro-fusca: *corpus subtus* flavo-fuscum: *pedes* flavi, posticis interdum flavo-fuscis: *antennæ* flavæ.
Long. corp. lin. 3, lat. lin. $1\frac{4}{5}$.

Obydos, Amazons. Taken by Mr. Bates.

*Lactica seminigra.*

*L.* robusta, satis depressa, obsolete punctata, nitida, flava, elytris ad apicem nigris: *caput* ad frontem fovea utrinque obliqua, impunctatum: *thorax* impunctatus, nitidus: *scutellum* flavum: *elytra* robusta, subtiliter et sparsim punctata, flava, hemielytra apicalia nigra: *corpus subtus* flavum, abdomine interdum fusco: *pedes* et *antennæ* flavi.
Long. corp. lin. 3, lat. lin. $1\frac{2}{3}$.

Taken by Mr. Bates at Ega, Amazons.

*Lactica pallida.*

*L.* pallide testacea: *caput* fronte nigro: *thorax* impunctatus: *scutellum* flavo-testaceum: *elytra* parallela satis depressa subtilissime punctata: *antennæ* flavæ, vel articulis mediis (4–8) nigro-fuscis: *pedes* et *corpus subtus* flavi.
Long. corp. lin. 3, lat. lin. $1\frac{1}{2}$.

Uniformly of a pale flavous colour, the front of the head being black; in this as in other species, the antennæ manifest the greatest tendency to variation. I have two examples before me from the same locality, of these one has its antennæ entirely pale flavous, the other has the fourth to the eighth joints black.

Taken at Ega, Amazons, by Mr. Bates.

Genus Tenosis, Clark.

Elongata, parallela. *Caput* penitus verticale, vix productum. *Palpi maxillares* cylindrici, art. ultimo elongatulo. *Thorax* transversus, sub-

quadratus, rectangularis, margine antico transverso vix excavato, lateribus rectis, marginatis, basi transversa, angulis anticis et posticis subrotundatis sed dente brevi notatis; ad basin fovea transversa latera attinet, thorax impunctatus. *Scutellum* triangulare. *Elytra* parallela, elongata, striato-punctata. *Antennæ* filiformes, art. 3 secundum longitudine superante, sed art. 4–9 breviore. *Pedes* femora robusta in ♂ infra ad medium fortiter angulata; *tibiæ* robustæ, ad apices dente brevi armatæ; tarsorum anteriorum in ♂ art. basalis latus; *unguiculi* bidentati.

The genus *Tenosis* represents a very distinct form, elongate and parallel; the thorax is rounded at the angles, and has a basal transverse fovea; the femora of the ♂ are armed with an inner medial angular projection, and the unguiculi are manifestly bidentate.

*Tenosis purpureipennis.*

*T.* rufa, elytris purpureis: *caput* super antennarum basin medio impressum, sparsim punctatum, nitidum: *thorax* confuse punctatus, rufus: *scutellum* rufo-fuscum: *elytra* striato-punctata, punctis ordinatis æqualibus: *antennæ* rufo-fuscæ, art. 1–3 rufo-flavis: *pedes* et *corpus subtus* rufi.

Long. corp. lin. $2\frac{1}{4}$, lat. lin. $\frac{4}{5}$.

Var. A. *Corpus subtus* et *pedes* nigro-violacei, femoribus apicalibus exceptis.

Taken by Mr. Gray and myself at Petropolis, Rio Janeiro, in February 1857.

In the cabinet of Mr. Baly and my own.

Genus Cæporis, Dej. Cat. 1837, p. 411.

Parallelo-ovalis, depressa. *Caput* subproductum. *Palpi maxillares* cylindrici, art. ultimo et penultimo paulum inflatis. *Thorax* transversus, lateribus subrotundatis et marginatis, angulis prominulis, ad basin transverse foveolatus. *Scutellum* triangulare, apice brevi vel subtruncato. *Elytra* parallela, depressa, thorace paulum latiora, apice rotundata, lævia. *Antennæ* filiformes, satis robustæ, art. 3 secundo latiore, sed 1 et 4 breviore. *Pedes* graciles; *unguiculis* penitus simplicibus, leviter appendiculatis.

*Cæporis* is, by its form generally, its antennæ and its slender legs, related to *Cacoscelis*. It differs from this genus in its more transverse and more distinctly angulated thorax, in the basal fovea of the thorax, in its impunctate elytra, and in the more simple form of unguiculi, those of *Cacoscelis* being either decidedly appendiculate or else armed with a second inner tooth.

*Cœporis subcostata.*

*C.* nigra, thorace et margine elytrorum (tenuiter) flavis: *caput* ad oculorum margines fortiter punctatum, læve, nigrum: *thorax* lævis, flavus, macula media antica transversa et altera basali, macula etiam laterali utrinque fusco-flavis: *scutellum* impunctatum, nigrum: *elytra* lævia, subtilissime rugosa, nigra, leviter flavo-marginata: *antennæ*, *pedes* et *corpus subtus* nigri.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{5}$.

Mexico. From the collection of the Marquis La Ferté.

*Cœporis marginata.*

*C.* nigra, thorace, sutura, et marginibus flavis: *caput* impunctatum, flavum: *thorax* ad basin confuse punctatus, flavus, macula media nigra insulata: *scutellum* impunctatum, nigrum: *elytra* parallela, lævia vel subtilissime punctata, nigra, sutura et margine tenuiter flavis: *antennæ* rufo-fuscæ: *pedes* nigri; tibiis tarsisque flavis: *corpus subtus* nigrum.

Long. corp. lin. $2\frac{2}{5}$, lat. lin. 1.

Buenos Ayres. From the collection of M. Chevrolat.

Genus Pelonia, Clark.

Ovalis, satis depressa. *Caput* breve, verticale; *oculi* ovales, apud marginem interiorem sinuati, vix excavati. *Palpi maxillares* satis elongati, art. 2ndo cylindrico, 3tio aliquot inflato brevi, 4to brevi triangulari. *Thorax* transversus, rectangularis, vix latitudine elytrorum basin æquans, angulis anticis subrotundatis posticis subacutis, lateribus satis marginatis et subrotundatis, disco plerumque impunctato, apud basin fovea transversa obsoleta lata. *Scutellum* triangulare, impunctatum. *Elytra* subparallela, apice rotundata, subtilissime reticulata, et interdum sparsim et confuse punctata. *Antennæ* filiformes, graciles, art. 3 paulum secundum superante, art. 4, 5, et 6 subæqualibus longioribus. *Pedes* modice elongati; tarsorum art. 2 minuto; *unguiculis* simplicibus.

I have formed this genus for the reception of a little group of pretty species, chiefly Amazonian, which have manifestly a special relationship to each other, but the relationship of which to and its differences from other allied groups it is not so easy to describe in writing. The species that compose it may *primâ facie* be distinguished by the peculiar, fine reticulation of their elytra, which makes the surface appear dull and dead, rather than shining; they may also be well separated from neighbouring forms by other characters—the relative lengths of the joints of the antennæ, the distinct but obsolete transverse depression of the basal part of the thorax, and the form of the maxillary palpi.

The following species are here described:—

A. Elytris concoloribus.
   1. Nigris prothorace rufo ..... *P. nigripennis.* Ega.
   2. Nigro-cyaneis .... ..... *P. nigro-violacea.* Santarem.

B. Elytris vittatis.
   3. Nigris, vitta flava..... *P. vittata.* Para.
   4. Flavis, vitta nigra ..... *P. rubra.* Santarem.
   5. Flavis, vitta obsoleta fusca ..... *P. rufo-testacea.* Rio.

*Pelonia nigripennis.*

*P.* ovata, depressa, rufa, elytris nigris: *caput* depressum, vel rufum vel nigrum: *thorax* rufus: *scutellum* rufum: *elytra* subtilissime reticulata etiamque punctis sparsis ornata: *antennæ* vel rufæ (capite rufo) vel fuscæ: *pedes* rufi; tibiis tarsisque posticis fuscis.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{2}$.

Ega, Amazons. Taken by Mr. Bates.

*Pelonia nigro-violacea.*

*P.* ovalis, depressa, elytris crebre punctatis, nigro-violacea: *caput* rugosum, nigro-violaceum: *thorax* crebre punctatus, niger: *scutellum* impunctatum: *elytra* creberrime punctata, punctis minutis et haud profundis: *antennæ*, *pedes* et *corpus subtus* vel nigri vel nigro-violacei.

Long. corp. lin. $2\frac{1}{5}$, lat. lin. 1.

Santarem, Amazons. Taken by Mr. Bates.

*Pelonia vittata.*

*P.* ovalis, depressa, flava, prothorace nitide rufo, elytris nigro-fuscis, vitta media flava: *caput* subrugosum, rufum, apice tamen flavo: *thorax* læte sanguineus, impunctatus: *elytra* punctata, punctis minutis confusis, quoad colorem fusca, vitta media a basi ad apicem tenui æquali flava: *antennæ* fuscæ, art. 1–3 flavescentibus: *pedes* flavi; tibiis tarsisque nigris: *corpus subtus* flavum.

Long. corp. lin. $2\frac{2}{5}$, lat. lin. $1\frac{1}{5}$.

Para, Amazons. Taken by Mr. Bates.

*Pelonia rubra.*

*P.* ovalis, depressa, crebre punctata, rufa, genubus, tarsis et vitta elytrorum utrinque nigro-fuscis: *caput* in fronte leviter carinatum, leviter rugosum: *thorax* subtilissime reticulatus: *scutellum* rufo-flavum, impunctatum: *elytra* crebre punctata, rufa, vitta utrinque media æquali nec basin nec apicem attinente nigro-fusca: *pedes* rufi; genubus et tarsis nigro-fuscis: *corpus subtus* rufo-flavum: *antennæ* fuscæ, art. 1–4 flavo-rufis.

Long. corp. lin. $2\frac{2}{5}$, lat. lin. $1\frac{1}{5}$.

Santarem, Amazons. Taken by Mr. Bates.

*Pelonia rufo-testacea.*

*P.* ovalis, depressa, elytris crebre punctatis, pallide rufa: *caput* super antennarum bases bifoveolatum, et ad frontem fortiter longitudinaliter carinatum: *thorax* impunctatus, marginibus leviter fuscatis: *scutellum* læve: *elytra* crebre punctata, vitta obscuriore media rufo-fusca, penitus obsoleta, nec basin nec apicem attinente: *pedes*, *antennæ* et *corpus subtus* pallide rufi.

Long. corp. lin. 2, lat. lin. 1.

Petropolis, Rio Janeiro. Taken by Mr. John Gray, in February 1857.

Genus Disonycha, Chevr. Dej. Cat.

Parallela. *Caput* penitus verticale. *Palpi maxillares* elongatuli, art. penultimo incrassato, ultimo brevissimo. *Thorax* transversus, elytra latitudine penitus æquans, margine anteriore vix emarginato recto, lateribus paulum rotundatis et marginatis, basi sinuata haud transverse foveolata, angulis anticis sat rectis, posticis subrotundatis. *Scutellum* triangulare. *Elytra* parallela, satis elongata, confuse punctata, plerumque vittis nigris vel flavis ornata. *Antennæ* filiformes, art. 3 secundo longiore sed 1 et 4–7 breviore. *Pedes* graciles; *unguiculis* simplicibus.

The form of the thorax of *Disonycha* brings it near to *Oxygona*; it differs from this genus in the greater breadth of the thorax, and its general more parallel as well as elongate form, and also in the length of the third joint of the antennæ, which in *Disonycha* is distinctly shorter than the first or third. *Disonycha* more closely still approaches in characters *Litosonycha*; it can never be confounded with this, being in form more cylindrical, more elongate, and having the sides of the thorax more depressed.

The genus is abundantly represented; but the question of separation of species composing it renders it one of the most perplexing genera in the whole of the Halticidæ.

*Disonycha trifasciata.*

*D.* nigra, prothorace rufo-flavo, elytris fasciis tribus pallide flavis: *caput* super oculos fortiter punctatum: *thorax* quinquemaculatus; maculis fuscis, una utrinque versus latus, 2 versus apicem, 1 versus basin: *elytra* punctata, fasciis tribus pallide flavis latis ad suturam interruptis, basali, media et apicali: *antennæ* nigræ, art. 1–3 fusco-flavis: *pedes* et *corpus subtus* rufo-fusci.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{2}{3}$.

Venezuela.

*Disonycha adumbrata.*

*D.* flava, thorace rufo-flavo; elytris vitta rufo-fusca obsoleta: *caput* im-

punctatum, flavum: *thorax* rufo-flavus, impunctatus, lævis: *elytra* vitta obsoleta rufo-fusca a humeris vix apicem attinente: *pedes*, *antennæ* et *corpus subtus* pallide testacei.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{3}$.

Amazons, Para. Taken by Mr. Bates.

*Disonycha viridipennis.*

*D.* viridis vel fusco-viridis, nigro notata: *caput* super oculos transverse foveolatum, viridi-fuscum: *thorax* viridi-flavus, macula media alteraque ad latus fuscis, impunctatus: *elytra* punctata, viridia, marginibus sutura macula juxta humeros et vitta post media juxta margines nigris: *antennæ* rufo-fuscæ: *corpus subtus* et *pedes* nigri; tibiis et tarsis fuscis.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{4}$.

Rio Janeiro.

Genus Systena, Chevr., &c.

Parallela, elongatula. *Caput* subdepressum. *Palpi maxillares* breves, cylindrici, robusti, art. ultimo breviter acuminato. *Thorax* quadratus vel penitus quadratus, lateribus anticis et posticis rectis, marginibus etiam parallelis et rectis (interdum a medio versus apicem paulum contractis) marginatis; basis in speciebus quibusdam obsolete transverse depressa est. *Scutellum* triangulare. *Elytra* parallela, satis cylindrica, confuse vel aliquando striato-punctata. *Pedes* satis graciles; *unguiculis* bidentatis vel fortiter appendiculatis. *Antennæ* filiformes haud elongatæ, art. 3 vix art. 1, 4 vel 5 longitudine æquante, art. 4 et 5 subæqualibus.

*Systena* is in some respects nearly allied to *Oxygona*; it is more parallel, narrower; the thorax is more quadrate and more distinctly rectilateral (the posterior angles being sharp, not rounded, the sides being parallel, not rounded towards the middle).

*Systena interrogationis*, Dej., Chevr., &c.

*Systena connexa*? Boh. Eugenies, 1851, 191. 405.

*S.* nigra; elytris vittis 2 albidis: *caput* fortiter punctatum, nigrum: *thorax* quadratus, marginibus anticis et posticis rectis, lateribus tenuiter marginatis, a medio ad apicem leviter contractis, subpunctatus: *scutellum* impunctatum, nigrum: *elytra* parallela, confuse punctata, nigra, vittæ duæ albidæ (ad margines iterumque juxta suturam) apicem approximantes, versus apicem sese attingunt: *antennæ* nigro-fuscæ: *pedes* et *corpus subtus* nigri.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $\frac{4}{5}$.

I have received this species from Bahia and other parts of Brazil; and also from Monte Video.

*Systena discicollis.*

*S.* subparallela, punctata, nigra; thoracis marginibus et elytrorum fascia et margine flavis: *caput* subtiliter punctatum, nigrum: *thorax* quadratus, impunctatus, fusco-niger, marginibus undique flavis: *scutellum* nigrum: *elytra* subparallela, impunctata, nigra, margine tenuiter et vitta media vix apicem attinente flavis: *antennæ* rufo-fuscæ: *corpus subtus* et *pedes* (femorum anticorum apicibus exceptis) nigri.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $\frac{4}{5}$.

Mexico.

*Systena sinuato-vittata.*

*S.* subparallela, subtiliter confuse punctata, nigra; capite, thorace, tibiis tarsisque et vitta sinuata in utroque elytro flavis: *caput* rufo-flavum, impunctatum: *thorax* impunctatus, flavus, marginibus tenue fusco-nigris: *scutellum* nigrum: *elytra* crebre punctata (punctis minutis confusis nigris), vitta sinuata media et apice tenuiter flavis: *antennæ* fuscæ, art. 1–3 flavis: *pedes* flavi; genubus, tibiis tarsisque rufo-flavis: *corpus subtus* flavum.

Long. corp. lin. 2, lat. lin. $\frac{4}{5}$.

Venezuela.

*Systena plagiata.*

*S.* subparallela, leviter punctata, flava; thoracis lateribus, elytrorum sutura et vitta submarginali nigris: *caput* rufum: *thorax* impunctatus, rufo-flavus, marginibus tenuiter nigris: *scutellum* nigrum, impunctatum: *elytra* leviter punctata, flava, sutura tenuiter et vitta submarginali latiori vix apicem attinente nigris: *antennæ* rufo-fuscæ, flavo-annulatæ: *pedes* rufo-flavi, genubus fuscis: *corpus subtus* flavum, abdomine nigro.

Long. corp. lin. $2\frac{3}{4}$, lat. lin. $1\frac{1}{5}$.

Allied in pattern to *S. discicollis* of Mexico, but quite distinct: the flavous colour of the thorax, the colour of the under side, and its greater breadth abundantly separate it.

Rio Janeiro.

*Systena pectoralis.*

*S.* flava; mesosterno et vittis elytrorum duabus nigris: *caput* impunctatum, rufum: *thorax* penitus quadratus, flavus, lateribus utrinque præsertim ad apicem fusco-marginatis, impunctatus: *scutellum* impunctatum, nigrum: *elytra* parallela, punctata, flava, sutura et fascia submarginali a basi ad apicem nigris (margine ipso flavo); *antennæ* fuscæ, art. 1–4 flavescentibus: *pedes* flavi; *tibiis tarsis*que etiam *femoribus* posticis apicalibus fuscis: *corpus subtus* flavum; *prosterno* fusco-marginato; *metasterno* nigro, abdominis basi fusco-tincta.

Long. corp. lin. $2\frac{1}{4}$, lat. lin. $\frac{4}{5}$.

Mexico.

*Systena marginicollis.*

*S.* parallela, subabbreviata, pallide flava, capite et elytrorum vittis duabus

flavo-rufis: *caput* impunctatum, rufo-flavum: *thorax* quadratus, impunctatus, pallide flavus marginibus præsertim versus apicem fusco-ornatis: *scutellum* impunctatum, rufo-flavum: *elytra* punctata, pallide flava, sutura late et fascia lata marginali flavo-rufis, plaga lineari post-media, vix apicem attinente submarginali rufo-fusca: *antennæ* rufo-flavæ: *pedes* flavi; genubus, tibiis tarsisque rufo-flavis: *corpus subtus* rufo-flavum.

Long. corp. lin. $1\frac{3}{4}$, lat. lin. $\frac{3}{4}$.

Venezuela.

*Systena humeralis.*

*S.* subparallela, impunctata, elytris subtilissime reticulatis, rufo-flava, elytris fusco-rufis: *caput* impunctatum, rufum: *thorax* impunctatus, rufus: *scutellum* flavum: *elytra* impunctata, rugis transversis minutissimis ornata, ad basin juxta humeros depressio brevis longitudinalis, ita ut humeri etiamque regio scutellaris prominentes extant; elytra rufo-flava, marginibus flavis, et baseos regionibus elevatis fusco-nigris: *antennæ* rufo-fuscæ, art. 1 flavo: *pedes* rufi; tibiis tarsisque fuscis.

Long. corp. lin. $2\frac{3}{4}$, lat. lin. $\frac{3}{5}$.

Venezuela.

*Systena testaceo-vittata.*

*S.* fusco-flava vel fusca, elytris subtiliter punctatis et testacea vitta ornatis: *caput* impunctatum, fusco-flavum: *thorax* confuse punctatus (punctis satis magnis et crebris), fusco-flavus vel fuscus: *elytra* fusco-flava, vitta media satis tenui a basi ad subapicem extendente vix apicem attingente flava: *antennæ* fusco-flavæ, flavo-annulatæ: *corpus subtus* nigrum: *pedes* rufo-flavi; tibiis posticis fusco-adumbratis.

Long. corp. lin. $1\frac{3}{4}$–2, lat. lin. $\frac{4}{5}$–1.

Petropolis, Rio Janeiro.

*Systena lugubris.*

*S.* parallela, confuse punctata, flava, prothorace rufo, elytrorum sutura et humeris fusco-notatis: *caput* et *thorax* impunctati, rufo-flavi: *scutellum* rufo-fuscum: *elytra* confuse punctata, flava macula utrinque brevi ad humeros, et sutura tenuiter fusco-nigris: *pedes* flavi: *corpus subtus* flavum, abdomine nigro: *antennæ* fuscæ, flavo-tinctæ.

Long. corp. lin. 2, lat. lin. $\frac{4}{5}$.

Rio Janeiro.

*Systena brunnipennis.*

*S.* rufo-brunnea, confuse punctata: *caput* et *thorax* impunctati, rufo-brunnei, margine thoracis tenuiter nigro: *scutellum* triangulare, impunctatum: *elytra* confuse punctata, flava: *corpus subtus* rufo-brunneum: *pedes* rufi; femoribus posticis nigris: *antennæ* rufo-brunneæ.

Long. corp. lin. $1\frac{4}{5}$, lat. lin. $\frac{4}{5}$.

Rio Janeiro.

*Systena mustela.*

*S.* parallela, striato-punctata, rufo-flava: *caput* et *thorax* impunctati, rufo-flavi; thorace elytra penitus latitude æquante: *elytra* parallela, striato-punctata, punctis æqualibus et ordinatis: *pedes*, *corpus subtus* et *antennæ* rufo-flavi.

Long. corp. lin. $1\frac{4}{5}$, lat. lin. $\frac{4}{5}$.

Petropolis, Rio Janeiro.

*Systena tincta.*

*S.* subparallela, punctato-striata, flava, elytris fusco vel rufo-fusco adumbratis: *caput* et *thorax* impunctati, rufi: *scutellum* rufo-fuscum: *elytra* punctato-striata, punctis ordinatis, rufo-vel flavo-fusca, sutura et apice flavis: *corpus subtus*, *pedes* et *antennæ* rufo-flavi.

Long. corp. lin. $1\frac{3}{4}$, lat. lat. $\frac{3}{5}$.

Venezuela.

This and other species of the genus may be separated from Mr. Baly's genus *Iphitrea* (Ent. Monthly Mag. 1864, 134), of which I am not so fortunate as to possess a typical specimen, by the obvious difference in length between the third and fourth joints of the antennæ; in this species and others the third is very distinctly shorter than the fourth.

*Systena suturalis.*

*S.* subparallela, impunctata, flava, elytris rufo-fuscis, marginibus et sutura flavis: *caput* et *thorax* impunctati, flavi: *scutellum* flavum: *elytra* impunctata, rufo-fusca, marginibus tenuiter et sutura flavis: *antennæ* rufo-flavæ, art. 1–4 flavescentibus: *corpus subtus* et *pedes* flavi.

Long. corp. lin. $1\frac{1}{2}$, lat. lin. $\frac{1}{2}$.

Venezuela.

*Systena novem-maculata.*

*S.* flava vel rufo-flava, confuse punctata, elytris 9-maculatis: *caput* et *thorax* impunctati, flavi, margine abbreviato versus apicem thoracis fusco: *scutellum* impunctatum: *elytra* crebre punctata, macula scutellari (media longitudinali abbreviata) maculisque utrinque ad basin (humerali et suturali minoribus), media (insulata subcirculari) et subapicali (transverse arcuata) nigris: *antennæ* rufo-fuscæ, flavo-annulatæ: *pedes* flavi: *corpus subtus* flavum, abdomine nigro.

Long. corp. $1\frac{4}{5}$ lin., lat. lin. $\frac{3}{5}$.

Constancia and Rio Janeiro. Taken by Mr. Gray and myself, in January 1857.

Genus Cacoscelis, Chevr., Dej. Cat.
D'Orb. Dict. Univ. Hist. t. iii. p. 13.

Elongata, parallela. *Caput* subproductum. *Palpi maxillares*, art. penultimo subgloboso, ultimo acuminato producto. *Thorax* transversus, elytris distincte angustior, angulis anticis sat prominulis, posticis rotundatis, lateribus rotundatis et marginatis. *Elytra* parallela, confuse punctata, marginata. *Antennæ* filiformes, art. 4–7 subæqualibus. *Pedes* graciles; *unguiculis* fortiter appendiculatis vel bidentatis.

This form is not unlike the genus *Disonycha*, which in pattern is obviously different from it; besides however the distinctions of size and coloration, the species of *Cacoscelis* may be known by their somewhat narrower thorax and their appendiculated unguiculi.

Two species only have been described.

*Cacoscelis famelica*, Ol. Encycl. iv. 106. Ill. Mag. v. 124. 59.
*Cacoscèlis marginata*, Fab. Syst. Ent. 1822.
—— *fervida*, Ol. Ent. vi. 93 bis. 671.
—— *testacea*, Ol. Encycl. vi. 586. 4.

Abundant on certain trailing large-leaved plants at Rio Janeiro. Their jumping-powers only equal, or indeed do not equal, those of some of the species of *Lema*; when surprised, they can just toss themselves over the side of the leaf: the species is notable for its great variation as to size; I have examples in my collection, taken by myself from the same plants, ranging from 8 to $3\frac{1}{2}$ lines: the species varies also considerably in pattern, for I cannot but consider as a variety of it the Cayenne form (with two large maculæ on the thorax) *C. binotata*, Ill. Mag. v. 124. 60, *C. famelica*, Ol., var., and also the Bolivian form (where the two thoracic spots are merged into one broad medial fascia) *C. fasciato-collis* of Chevrolat.

*Cacoscelis Feldneri*, Ill. (Cat. Dej.).
*Cacoscelis venusta*, Dej. Cat.
—— *melanoptera*, Germ. ?

*C.* parallelo-ovalis, nigro-violacea, capite rufo: *caput* transverse foveolatum, impunctatum, rufum: *thorax* leviter punctatus, rufus: *elytra* crebre et fortiter punctata, nigra vel nigro-violacea: *antennæ* rufo-fuscæ, art. 1–3 flavis: *pedes* et *corpus subtus* nigro-fusci.
Long. corp. lin. 6–$3\frac{3}{4}$, lat. lin. $3\frac{1}{2}$–$1\frac{3}{4}$.

Brazil, abundant.

The following are among the undescribed species in my collection:—

*Cacoscelis cæruleipennis*, Dej.

*C.* parallela, flava, elytris leviter punctatis, cæruleis: *caput* et *thorax* impunctati, flavi: *scutellum* flavum: *elytra* levissime punctata, nigro-cærulea: *antennæ* fusco-flavæ, art. 1–3 flavis, art. 9–11 testaceis: *pedes* et *corpus subtus* flavo-testacei.

Long. corp. lin. $5\frac{1}{2}$–$4\frac{1}{2}$, lat. lin. $2\frac{3}{4}$–$2\frac{1}{5}$.

To be distinguished at once from *C. Feldneri* by the colour of the under side and of the antennæ, as well as by the very fine punctuation of the elytra.

Brazil.

*Cacoscelis clythræformis.*

*C.* parallela, nigra, elytris flavis: *caput* rugosum, vel flavum vel fusco-flavum: *thorax* lævis, sparsim punctatus, niger, marginibus undique tenue flavis: *scutellum* flavum, impunctatum: *elytra* crebre punctata, flava: *antennæ* nigro-fuscæ, art. 1–3 flavescentibus: *corpus subtus* et *pedes* nigri, genubus flavis.

Long. corp. lin. 5, lat. lin. $2\frac{1}{3}$.

Brazil; also, according to an example from M. Thomson's collection, Cayenne.

*Cacoscelis flava.*

*C.* omnino, antennis exceptis, flava: *caput* et *thorax* impunctati: *elytra* parallela, levissime reticulata, impunctata: *corpus subtus* et *pedes* flavi: *antennæ* fuscæ, art. 1–3 flavescentibus.

Long. corp. lin. $5\frac{1}{2}$, lat. lin. $2\frac{1}{2}$.

Mexico.

*Cacoscelis testacea.*

*C.* parallela, satis lata, punctata, flavo-testacea: *caput* obsolete super antennarum bases transverse foveolatum, impunctatum: *thorax* impunctatus (punctis apud latera sparsis, obsoletis): *scutellum* læve: *elytra* punctata: *antennæ* fusco-testaceæ, art. 1–4 flavescentibus: *pedes* et *corpus subtus* flavo-testacei.

Long. corp. lin. $5\frac{1}{2}$, lat. lin. 3.

*C. testacea* is a much larger and relatively broader insect than *C. flava*; the elytra also are more obviously punctate.

S. Martha. Received from M. Bouchard.

*Cacoscelis cæruleipennis* (Dej.).

*C.* omnino nigro-cærulea: *caput* longitudinaliter etiamque super oculos transverse notatum, impunctatum, fusco adumbratum: *thorax* sparsim et leviter punctatus: *elytra* crebre et fortiter punctata: *pedes, antennæ* et *corpus subtus* nigro-cærulei.

Long. corp. lin. $5\frac{1}{2}$, lat. lin. $2\frac{1}{2}$.

Brazil.

*Cacoscelis fimbriata* (Chevr.).

*C.* elongata, parallela, rufa; elytris nigris: *caput* arcuate foveolatum, impunctatum: *thorax* subtiliter et sparsim punctatus: *elytra* crebre punctata, nigra: *antennæ* rufo-fuscæ, art. 1–3 flavescentibus: *pedes* et *corpus subtus* rufi.

Long. corp. lin. 3, lat. lin. $1\frac{1}{5}$.

*C. fimbriata* may be separated from the Mexican species, *C. bicoloraria*, by the coarse and close punctuation of the elytra; its very parallel, subattenuate form will distinguish it from the Brazilian species, *C. nigripennis*.

Bolivia.

*Cacoscelis bicolorata*.

*C.* nigra, prothorace rufo-flavo: *caput* transverse foveolatum, impunctatum: *thorax* impunctatus: *elytra* leviter punctata: *antennæ* rufo-fuscæ, art. 1–3 flavis: *pedes* et *corpus subtus* nigri; *femoribus* anticis flavo adumbratis.

Long. corp. lin. 4, lat. lin. $1\frac{1}{2}$.

This Mexican species may be separated from its congeners by its finely not coarsely punctate elytra.

Mexico.

*Cacoscelis nigripennis*.

*C.* parallela, nigra, prothorace rufo: *caput* super oculos transverse etiamque longitudinaliter foveolatum, impunctatum, flavo-rufum: *thorax* leviter punctatus: *elytra* satis parallela, creberrime punctata: *pedes* et *corpus subtus* nigri: *antennæ* nigro-fuscæ, art. 1–3 subtus flavescentibus.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. $1\frac{1}{2}$.

*C. nigripennis* approaches *C. fimbriata*; it is distinctly broader, and the legs and under side are black. It is separated from *C. bicoloraria* by the *coarse* punctuation of the elytra.

Brazil.

Genus Caloscelis.

Robusta, parallela, brevis, e majoribus. *Caput* verticale, modice productum. *Thorax* elytra latitudine æquans, transversus, subrectangularis, angulis anticis acutis prominulis, lateribus rotundato-sinuatis et marginatis, angulis posticis modice rotundatis, haud acutis, thorax declivis. *Scutellum* triangulare. *Elytra* brevia, robusta, apice transverse rotundata, in specie unico leviter et confuse striato-punctata. *Pedes* elongati, robusti, femora postica apicem elytrorum attinentia: *tibiæ* robustæ, elongatæ; *tarsis* in extremum tibiarum insertis; *unguiculis* utrinque bidentatis. *Antennæ* filiformes, graciles, art. 2 brevi, art. 3–10 subæqualibus.

The short, robust form of this genus, combined with its slender filiform antennæ and very elongated posterior legs, sufficiently dis-

tinguish it from allied groups. The posterior femora extend to the apex, and the posterior tibiæ and tarsi extend beyond the apex to nearly the length of the elytra.

The genus is formed on a single specimen which I received in the Amazonian collection of Mr. Bates.

*Caloscelis azureipennis.*

*C.* robusta, brevis, leviter punctata, rufo-flava, elytris cyaneis: *caput* inter oculos obsolete transverse depressum, et supra hanc foveam tuberculum utrinque obsoletum apparet impunctatum: *thorax* ad medium versus frontem, iterumque versus basin transverse depressus (hac depressione obsoleta, haud abrupta); leviter punctatus: *scutellum* impunctatum, fuscum: *elytra* brevia, robusta, striato-punctata, punctis vix ordine instructis: *corpus subtus* rufum: *pedes* rufi: *antennæ* fuscæ, art. 1–3 flavis.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

A lovely species, taken near Para by Mr. Bates. By its short and robust body, it will take its place near to the genus *Monomacra*.

Genus Notozona.

Ovata, robusta. *Caput* breve, verticale. *Palpi maxillares* cylindrici, modice elongati. *Thorax* transversus, margine anteriori satis excavato et subtiliter marginato, lateribus paulum rotundatis marginatis, angulis anticis depressis et subacutis, angulis posticis acutis, margine posteriori sinuato et marginato. *Scutellum* triangulare. *Elytra* robusta, pone apicem declivia, punctato-striata, plerumque læte colorata. *Antennæ* elongatulæ, filiformes, art. 3 et 4 æqualibus, art. 2 longioribus, sed art. 5–11 brevioribus. *Pedes* robusti; *femoribus* posticis infra dente brevi et robusto armatis; *tibiis* posterioribus subincurvatis et versus apicem angulatis; *unguiculis* utrinque bidentatis, dente brevi utrinque prope apicem armatis.

The genus Notozona was laid down by Chevrolat to include three or four handsomely marked species; it is sufficiently well-defined, and may be recognized by the broad thorax, robust form, punctate-striate elytra, and doubly-hooked unguiculi.

Mr. Baly has recently described three species in the 'Annals and Magazine of Natural History,' September 1865; and one other, *N. bifasciata*, Oliv., is also recorded from Cayenne.

The following table may aid in the determination of the species known or herewith described:—

Elytra flavous, with rufo-flavous or rufous spots .. *N. macularia.*
flavous, with fuscous or rufous spots ..... *N. marmorata.*
pale flavous, with black markings ..... *N.* 14-*maculata.*

Elytra flavous with black or rufous spots ..... *N. convexa*, Dej.
rufous, with flavous „ „ ..... *N. pulchra*, Dej.
fuscous, with rufous „ „ ..... *N. sparsa.*
black, with flavous „ „ ..... *N. 9-maculata.*
„ „ flavous bands ..... *N. bifasciata*, Oliv.
„ „ „ „ ..... *N. elegans.*
„ „ „ „ ..... *N. transverse-notata.*
rufo-fuscous, with flavous bands ..... *N. rufo-fusca.*
unicolorous ..... *N. humilis.*
„ ..... *N. sanguinea.*
„ ..... *N. tenella.*

*Notozona macularia.*

*N.* pallide viridis, rufo-flavo obsolete maculata: *caput* super oculos transverse arcuate impressum, flavum: *thorax* impunctatus, flavus: *scutellum* flavum: *elytra* punctato-striata, punctis sat magnis crebris et plerumque ordine dispositis, pallide viridescentia maculis tribus obsoletis rufo-flavis, prope basin mediam (inter strias 3 et 4), postmedia (inter strias 4 et 5), et apicali, omnibus subcircularibus insulatis: *pedes* et *corpus subtus* rufo-flavi: *antennæ* flavæ.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

Cayenne.

*Notozona marmorata.*

*N.* flava, fusco notata: *caput* inter oculos subrugosum, nigrum: *thorax* punctatus, crebrius apud latera, flavus: *elytra* striato-punctata (punctis æqualibus et ordinatis), flava; sutura, margine, macula transversa antemedia (basi connexa), macula postmedia et apice late fuscis: *pedes* flavi; tibiis tarsisque fuscis: *corpus subtus* flavum; *metasterno* fusco-nigro: *antennæ* art. 1–4 fuscis, ab intus flavescentibus, 5–7 nigris, 8 testaceo, reliqui desunt.

Long. corp. lin. 3, lat. lin. $1\frac{3}{4}$.

Para, Amazons. Taken by Mr. Bates.

*Notozona* 14-*maculata.*

*N.* satis oblonga, striato-punctata, albida vel flavo-albida, maculis elytrorum nigris: *caput* et *thorax* impunctati, albidi: *scutellum* impunctatum, flavo-fuscum: *elytra* punctato-striata, punctis acie ordinatis, nigro-maculata, utrinque maculis duabus ad basin (humerali circulari, et scutellari oblonga) duabus ante mediam (marginali circulari, et inter strias 5 et 6 oblonga), duabus subapicalibus (marginali et suturali suboblongis), etiamque apicali brevi: *antennæ*, *pedes* et *corpus subtus* flavo-albidi.

Long. corp. lin. 4, lat. lin. 2.

Brazil. From the collection of the Marquis La Ferté.

*Notozona sparsa.*

*N.* flava; elytris rufo-fuscis, flavo maculatis: *caput* flavum: *thorax* punctatus, flavus: *scutellum* rufo-flavum: *elytra* crebre punctato-striata; punctis satis magnis et irregulariter ordinatis, rufo-fusca, maculis utrinque 20–25 parvis ornata, plerumque insulatis flavis: *antennæ*, *corpus subtus* et *pedes* flavi.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

Mexico.

*Notozona novem-maculata.*

*N.* flava, elytris nigro-fuscis, flavo maculatis: *caput* flavum, basi late fusco: *thorax* sparsim punctatus, flavus: *scutellum* impunctatum, flavum: *elytra* striato-punctata, punctis haud omnino serie æquali dispositis, nigro-fusca, maculis flavis ornata, 1 communi, parva prope scutellum, 2 utrinque humerali, 3 et 4 mediis (majoribus, circularibus, insulatis, transverse positis) 5 apicali: *antennæ* fuscæ, art. 7–10 flavis: *pedes* flavi; tibiis tarsisque nigris: *corpus subtus* flavum.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

Cayenne.

*Notozona elegans.*

*N.* flava, fusco notata: *caput* ad frontem transverse arcuatim foveolatum, flavum: *thorax* leviter punctatus, flavus: *scutellum* impunctatum, flavum: *elytra* striato-punctata (punctis ordinatis), flava, macula humerali (minuta) etiamque macula scutellari (circulari insulata), fascia lata media æquali (vix marginem attinente) et altera fascia pone apicem fuscis: *corpus subtus* flavum: *pedes* flavi; tibiis et tarsis fuscis: *antennæ* flavæ, art. 5–7 fuscis.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

Mexico.

*Notozona transverse-notata.*

*N.* rufa, elytris nigris, flavo fasciatis, maculis prothorace, metasterno, tibiis et antennis nigro-fuscis: *caput* ad basin macula nigra media insulata: *thorax* rufo-fuscus, maculis 7 nigris insulatis, 1 utrinque ad angulos anteriores, 1 ad angulos posticos, 1 media juxta scutellum, 2 mediis prope apicem: *scutellum* nigrum: *elytra* punctato-striata, punctis inæqualiter dispositis; fasciæ tres flavæ tenues æquales elytra ornant, antemedia, postmedia, tertiaque juxta apicem, fascia antemedia basi fascia tenui connectitur; basis quoque et sutura tenuiter flavæ: *antennæ* nigro-fuscæ, art. 1–4 ab infra flavis: *corpus subtus* rufum; metasterno et abdominis apice nigro-fuscis: *pedes* rufi; *femoribus* apicalibus, *tibiis tarsis*que nigris.

Long. corp. lin. 4, lat. lin. $2\frac{1}{3}$.

To be distinguished from *N. rufo-flava* (to which alone it approaches) by its colour, and also by the irregularly arranged rows of punctures on the elytra.

Brazil.

*Notozona rufo-fusca.*

*N.* e majoribus rufo-flava, fasciis flavis in elytris ornata: *caput* impunctatum, rufum: *thorax* sparsim punctatus, rufus: *scutellum* rufo-flavum: *elytra* striato-punctata (punctis æqualibus et ordinatis), interstitiis lævibus subtilissime transverse reticulatis, rufis vel rufo-flavis, fasciis in elytris 4, basali, antemedia (paulum obliquata), postmedia (vix suturam attinente), et apicali (brevi), omnibus tenuibus et inæqualiter definitis, margines etiam tenuiter flavi: *corpus subtus* etiamque *pedes* rufo-flavi: *antennæ* rufo-flavæ, art. 7–11 fuscis.

Long. corp. lin. $3\frac{3}{4}$, lat. lin. $2\frac{1}{2}$.

This species may be recognized by the irregular and angulated form of the fasciæ of the elytra, the margins of which are interrupted as they cross each row of striate punctures.

Honduras.

*Notozona humilis.*

*N.* flava; elytris rufis: *caput* et *thorax* impunctati, flavi: *scutellum* impunctatum, rufo-fuscum: *elytra* striato-punctata, punctis crebris et ordinatis, rufa: *corpus subtus* flavum: *pedes* flavi; tibiis tarsisque nigris: *antennæ* nigræ, art. 1–4 infra flavescentibus.

Long. corp. lin. $3\frac{1}{2}$, lat. lin. 2.

Mexico.

*Notozona sanguinea.*

*N.* flava; elytris sanguineis: *caput* inter oculos arcuate foveolatum, flavum: *thorax* impunctatus, flavus: *scutellum* flavo-rufum: *elytra* punctato-striata, punctis crebris et satis ordinatis, sanguineo-rufa: *antennæ* nigræ, art. 1–4 infra flavescentibus: *corpus subtus* flavum: *pedes* flavi; tibiis tarsisque nigris.

Long. corp. lin. 3, lat. lin. $1\frac{3}{4}$.

Brazil.

*Notozona tenella.*

*N.* rufo-fusca: *caput* crebre punctatum: *thorax* obsolete punctatus: *scutellum* lævе: *elytra* striato-punctata, punctis acie ordinatis satis crebris: *antennæ, corpus subtus* et *pedes* rufo-fusci.

Long. corp. lin. $2\frac{1}{2}$, lat. lin. $1\frac{1}{2}$.

The smallest known species of the genus: it may be separated from *N. humilis* and also from *N. sanguinea* by the evenness and regularity of the striated punctures on the elytra, as well also, of course, by its colour and size.

Mexico.

## XXVIII.—*On some New Genera of* Curculionidæ.

By Francis P. Pascoe, F.L.S., &c.

### Part I.

[Plate XVII.]

In arranging my collection of Curculionidæ, I frequently meet with forms that give me no little trouble in the attempt to fix their exact position in the family. Notes are necessarily made, and a few, having being worked out afresh, are here offered to the readers of this Journal.

From the time of Schönherr the Curculionidæ, especially the exotic, have been a comparatively neglected group; but the great work of Lacordaire* can scarcely fail to give an impetus to their study. Since its appearance, we have had monographs of some of the largest and most difficult of the European genera from the pens of Wencker, Baer, Allard, Brisout de Barneville, &c. Dr. Kraatz† has given us what he considers a "ground-work of a natural system," with especial reference to M. Lacordaire's work, so far as it has yet appeared; and more recently M. Jekel‡ (who, of all entomologists, is the most practically acquainted with this family) has published his 'Researches into their Natural Classification'§. Both these great authorities object to the primary divisions of M. Lacordaire, based on the covering (*Adelognathes*), or the contrary (*Phanerognathes*), of the maxillæ by the mentum. Dr. Kraatz would take in preference the length of the scape (*i. e.* either extending to or passing the anterior margin of the eye). "Whether this is the case or not," he says, "may appear very unimportant; but it should not be forgotten that the different lengths of the scape must stand in necessary connexion with the scrobe, which plays an important part in the determination of the genera. If the scape passes the anterior border of the eye, it will be too long for the scrobe. This must influence the movement of the whole of the antennæ—one of the essentials in the life of the insect"||. In the "*Adelognathes*" the genera are generally "long-scaped"; between these and the "long-scaped" genera of the "*Phanerognathes*" there is often a near rela-

* Genera des Coléoptères, tom. vi.

† Berliner Entomologische Zeitschrift, 1864, pp. 154 *et seq.*

‡ Annales de la Société Entomologique de France, 1864, p. 537.

§ An analysis of Lacordaire's sixth volume is given in the 'Entomologist's Annual' for 1865, pp. 143 *et seq.*

|| M. Jekel (Ann. de la Soc. Ent. Fr. 1864, p. 556) observes on this point, that if the scape encroaches on the eye, it is as completely lodged in the scrobe as if it fell short of it, the scape meeting the eye on its lowest portion.

tionship, and the genera, therefore, appear to be "unnaturally separated." Dr. Kraatz gives various examples in illustration of this position, mostly, however, taken from European genera.

M. Jekel, who distinguishes the "*Attelabides*," "*Cossonides*," and "*Calandrides*" as families equally with the Brenthidæ, Bruchidæ, &c., and, putting aside the "*Brachycerides*," "*Byrsopsides*," and "*Amycterides*," divides the *true* Curculionidæ into those in which the male is smaller and narrower posteriorly than the female; the latter being more depressed, he calls this division "*Platygynes*." They are all "*Cryptopyges*" and "*Symmerides*"*, and "contain the immense majority of the *Brachyrhynchi* and *Erirhinides* of Schönherr, all the *Adelognathes* of Lacordaire (less the *Brachycerides*), and a part of his *Phanerognathes symmerides*." In another division, which M. Jekel names "*Isogynes*," the difference between the sexes is very insignificant, the male being only sometimes a trifle smaller than the female; but there is no difference in proportions, as is seen in the former division. The Isogynes are all "*Cryptopyges*," and for the most part "*Symmerides*," and are "composed in great part of the *Brachyrhynchi* and *Erirhinides* of Schönherr, not comprised in the preceding division." Some of these are "*Brevirostres Homorhines*" (*i. e.* rostrum alike in both sexes); others are "*Heterorhines*." In the third and last division, "*Metriogynes*," the males are never smaller, but are often superior in size to the females, and especially in the greater bulk of the prothorax, and often also of the elytra at the base. They comprise the greater part of the *Apostasimerides* of Schönherr, and some of his *Erirhinides*, and are divided into "*Cryptopyges*" and "*Gymnopyges*."

Although no *special* arrangement of the Curculionidæ is attempted either by Dr. Gerstaecker or M. C. G. Thomson, we may glance for a moment at their views relative to the position and limits of the family itself in its place among the Rhynchophora. Dr. Gerstaecker†, discarding the latter division, refers the rostriferous families, together with the Longicornia, Chrysomelina, &c., to the "Coleoptera cryptopentamera." First separating the *Bruchidæ* as a distinct family, we have his four "*groups*," "*Anthribini*," *Brenthidæ*, *Rhynchitidæ*, and "*Curculiones genuini*," brought together to form his family "*Curculionina*." In this arrangement *Calandra* and *Cossonus* and their allies are not distinguished from the true Curculionidæ, and *Bostrichidæ* follow as another family. In the seventh volume of 'Skandinaviens Coleoptera,' just published, M. C. G.

* Not "*Synmerides*," as it is generally written.

† Peters, Carus, und Gerstaecker, 'Handbuch der Zoologie,' p. 159.

Thomson, very considerably modifying his synoptical arrangement contained in the first volume of the above work, now divides the Rhynchophora into two "*stirpes*"—"Isotoma" and "Anisotoma," the first including the families *Bruchidæ*, *Anthribidæ*, *Rhinomaceridæ*, and *Attelabidæ*, the second, *Apionidæ* and *Curculionidæ**.

Among the genera described below are some of the most puzzling ones in my collection. It is very likely, therefore, that my views as to their affinities may be questioned. It should be recollected, however, that scarcely more than 7000 species have been described, out of a number recently estimated by M. Jekel at about 30,000, and that a host of new types remain to be recognized. When this is done, many forms now isolated will cease to be so. Under any circumstances there will always be a certain latitude of opinion as to the importance to be attached to some characters in preference to others, as, indeed, we have just seen. Moreover, there is often a great individuality in the species of the Curculionidæ, even when belonging to the same genus, and an absence of any marked habit in many of the genera; so that it is not until almost every organ is examined in some cases that we are able to form an idea of the affinities of our insect.

As my object is only to characterize new forms, I have contented myself with describing only one species of each genus, perhaps entering more fully into some of them hereafter.

### Atychoria.

*Rostrum* breve, incrassatum, supra bilobatum, apice profunde impressum, utrinque infra scrobem canaliculatum; scrobe obliqua profunde curvata, oculum attingente. *Oculi* oblongi, valde depressi. *Antennæ* breves; *scapo* sensim incrassato; *funiculo* 6-articulato, duobus basalibus obconicis, cæteris transversis; *clava* breviter ovata. *Prothorax* subovatus, supra medio longitudinaliter sulcatus, lobis pone oculos productis, ciliatis. *Scutellum* non visum. *Elytra* subobovata, apicem versus producta, supra medio subplanata, utrinque carinato-angulata, humeris antice projectis. *Pedes* mediocres, postici paulo longiores; *femoribus* vix incrassatis; *tibiis* teretibus, muticis; *tarsis* subtus haud spongiosis, articulis tribus basalibus latitudine fere æqualibus; *ungues* distincti. *Processus* interfemoralis dilatatus, antice truncatus.

Distinguished from *Mythites* (*inter alia*) by the form of the head and snout, the scrobe extending to the eye, and the antennæ inserted near the end of the scrobe. I owe my example to Mr. Odewahn.

* The work has not arrived at *Calandra* and *Cossonus*, but they will probably form subfamilies.

*Atychoria funesta.* (Pl. XVII. fig. 22.)

*A.* nigra, opaca, confertim subtilissime granulata, tuberculis setigeris numerosis, instructis: rostro rugoso-punctato, apice ciliato; antennæ vix longitudine capitis; prothorax latitudine non longior, lateribus rotundatus, medio sulcatus, utrinque linea curvata impressa; elytra basi prothorace paulo latiora, pone humeros ultra medium sensim ampliata, dein citius angustata, apicem versus producta, apice ipso singulorum divaricato, acuto: supra medio subplanata, utrinque tricarinato-angulata, carina intima irregulari, basi elevata, secunda minus producta ad humeros connexa, tertia breviora, marginem versus sita: postice valde declivia; corpore subtus nigro, parce brunneo-squamoso; pedes brunneo-pubescentibus, nigro-setosis. Long. 5 lin.

*Hab.* South Australia.

Methypora.

*Rostrum* elongatum, validum, supra sulcatum; *scrobe* curvata, infra oculum desinente. *Oculi* laterales, subrotundati. *Antennæ* breviusculæ, versus apicem rostri insertæ; *scapo* clavato; *funiculo* 7-articulato, duobus basalibus breviusculis, cæteris brevioribus, gradatim crassioribus; *clava* ovata. *Prothorax* oblongus, subcylindricus, basi scutellum versus lobatus. *Elytra* elongata, supra planata, postice abrupte declivia, apice singulorum producta, dehiscentia. *Pedes* subgraciles; *femoribus* muticis, medio incrassatis; *tibiis* anticis curvatis, intus uncinatis; *tarsis* brevibus, articulo penultimo latiore. *Abdomen* segmentis duobus basalibus maximis, connatis, tertio et quarto brevissimis. *Processus* interfemoralis late rotundatus.

The characters of the rostrum, tibiæ, and abdomen would lead me to refer this remarkable genus to the neighbourhood of *Plinthus*; but its habit is altogether different from anything I have seen.

*Methypora postica.* (Pl. XVII. fig. 5.)

*M.* elongata, fusco-brunnea; elytris postice griseis; capite et rostro creberrime punctatis, hoc medio sulcato, utrinque linea parum elevata; antennis rufo-brunneis; prothorace confertim punctato, lateraliter subsulcato, in medio linea fulvo-squamulosa; scutello elongato (duplo longiore quam latiore), fulvo vestito; elytris prothorace multo latioribus, humeris rotundatis, lateribus parallelis, apicem versus sensim angustioribus et declivibus, singulo in mucrone valido terminato, dorso planato, ad declivitatem utrinque dentato; *corpore* infra griseo-hirto, segmentis tribus apicalibus abdominis læte brunneis; pedibus rufescentibus, sparse griseo-hirtis. Long. 4 lin.

*Hab.* Victoria (Melbourne).

Aphela.

*Caput* latum, convexum, gula excavata. *Rostrum* validum, longitudine capitis æquale; *scrobe* laterali, profunda, versus oculum latiore, in basi rostri (gula) exeunte. *Oculi* parvi, rotundi, fronte et infra distantes.

*Antennæ* breviusculæ, in medio rostri insertæ; *scapo* pyriformi, oculos attingente; *funiculo* 7-articulato, art. primo brevi, secundo elongato, obconico, reliquis brevissimis, gradatim latioribus, 7° clava adnexo; *clava* brevissima. *Prothorax* longitudine paulo latior, ampliatus, convexus, æqualis, lateribus et angulis posticis rotundatus, basi truncatus, apice angustatus, lobis ocularibus haud productis. *Scutellum* nullum. *Elytra* ovata, prothoracis basi parum latiora, humeris haud prominulis. *Pedes* breviusculi; *femoribus* incrassatis, muticis; *tibiis* extrorsum latioribus, anticis intus dente obtuso armatis; *tarsis* inæqualibus, anticis brevissimis, art. tertio dilatato, bilobo, ultimo cæteris sumptis æquali; intermediis longiusculis modice dilatatis; posticis breviusculis, art. tertio integro, præcedentibus angustiore; *unguibus* liberis. *Abdomen* segmentis duobus basalibus maximis, sutura inter eos obsoleta. *Corpus* glabrum.

In habit resembling some species of *Helops* or, among the Curculionidæ, of *Baris*, Germ. It has some of the general characters of *Iphipus**, such as the form of the antennæ, prothorax, and elytra, but is more convex, the rostrum essentially different, the corbels of the posterior tibiæ open, &c. The tarsi are very remarkable.

*Aphela helopoides.* (Pl. XVII. fig. 4.)

*A.* oblongo-ovata, rufa, nitida; capite et rostro parcius et subtiliter punctatis; antennarum clava pubescente; prothorace subtilissime et vage punctato, medio fere impunctato; elytris striatis, interstitiis multo latioribus, foveolatis; corpore infra nitidis, irregulariter punctatis; pedibus nitidis; tibiis, præsertim posticis, tuberculo-setulosis. Long. $2\frac{1}{2}$–3 lin.

*Hab.* South Australia; New South Wales.

ETHEMAIA.

*Caput* porrectum. *Rostrum* validum, capite longius, antice carinatum vel carinato-callosum; *scrobe* obliqua, curvata, infra oculum desinente. *Oculi* rotundati, prominuli. *Antennæ* breviusculæ, apicales; *scapo* gracili; *funiculo* 7-articulato, art. duobus basalibus breviusculis, reliquis brevioribus; *clava* breviter ovata. *Prothorax* parvus, subcylindricus, apice truncatus, basi subbisinuatus. *Scutellum* oblongum. *Elytra* oblonga, prothorace multo latiora, parallela, postice declivia, apice rotundata, supra planata, humeris subobliqua. *Pedes* debiles; *femoribus* clavatis; *tibiis* teretibus, bispinosis; *tarsis* subæqualibus, angustis, infra pilosis, art. penultimo bilobo, art. ultimo elongato; *unguibus* liberis. *Abdomen* segmentis duobus basalibus maximis, connatis. *Processus* interfemoralis subangulatus.

For the present, I can only suggest a distant affinity of this genus

* Another genus resembling *Iphipus* (*I.? Roei*) is *Sympiezoscelus*, Waterh. I have a second species from Queensland, which renders it probable that the type, described by Mr. Waterhouse, but whose habitat was doubtful, is also from Australia.

with *Gonipterus*; the legs are quite different, though the posterior corbels are open in both. The habit is that of certain species of *Rhytirhinus*. I have described a second species, inasmuch as there are some differences in the rostrum, which, in another less obviously congeneric, might be considered sufficient to warrant its separation as a distinct genus.

*Ethemaia sellata.* (Pl. XVII. fig. 25.)

*E.* oblonga, fusca, griseo-squamosa, setulis paucis arcuatis adspersis; capite rostroque dense squamosis, hoc antice elevato et inter oculos bilobo, medio breviter carinato; antennis brunneis, griseo-tomentosis; funiculo nitido, crinito; prothorace irregulariter favoso, vittis quatuor nigris indistinctis; scutello griseo; elytris seriatim punctatis, interstitiis haud elevatis, punctis mediocribus, leviter impressis, declivitate singulorum quadricallosis, dorso pone medium macula magna semilunari fusca; corpore infra et pedibus griseo-squamosis et parce crinitis. Long. 3¼ lin.

*Hab.* South Australia.

*Ethemaia adusta.*

*E.* oblonga, fusca, griseo-squamosa, setulis paucis arcuatis adspersis; capite fusco creberrime punctato, superciliis setulosis; rostro fusco, haud elevato, antice quinque carinato; prothorace cylindrico, medio sulcato, vage impresso-punctato; scutello griseo, elevato; elytris seriatim punctatis, interstitiis alternis modice elevatis, declivitate singulorum quinque callosis, dorso griseo, lateribus fuscis; corpore infra subargenteo-squamoso; pedibus griseo-squamosis. Long. 3 lin.

*Hab.* South Australia.

Myossita.

Characteres ut in *Trane*, sed *oculi* parvi prominuli, rotundati, tenue granulati, infra distantes, et *clava* antennarum elongata.

Resembles a starved specimen of *Tranes Vigorsii*; but the character of the eyes is opposed to its being placed in *Tranes*.

*Myossita rufula.* (Pl. XVII. fig. 23.)

*M.* elongata, depressiuscula, rufo-ferruginea, opaca, squamulis filiformibus griseis valde adspersis; capite rostroque subtiliter punctatis; antennis fulvescentibus; oculis pallidis; prothorace latitudine haud longiore, leviter punctato, lateribus rotundato, parce piloso; scutello parvo, transverso, postice rotundato; elytris latitudine duplo longioribus, prothoracis medio paulo latioribus, seriatim punctatis, maculis griseo-pilosis adspersis; corpore infra pedibusque parce pubescentibus; femoribus subtus dente valido armatis; tarsorum articulo ultimo valde dilatato. Long. 3 lin.

*Hab.* South Australia.

While passing this sheet through the press I found, on re-examination, that the Curculionid described on this page was identical with *Oncorhinus*. To fill the vacancy thus created by the withdrawal of the description of the insect in question, I have subjoined the characters of two new species of *Rhinaria*, Kirby.

*Rhinaria stellio.*

*R.* oblonga, nigra, sordide albescenti-squamosa et griseo variegata; fronte valide triverrucosa, inter oculos verrucis duabus elevatis, infra verruca trilobata minus elevata; rostro antice modice excavato, a fronte haud disjuncto; antennis nigris; prothorace utrinque rotundato, pone medium paulo gradatim angustato, basi quam apice multo latiore, granulis exiguis confertim obsitis; scutello subtriangulari; elytris prothorace quadruplo longioribus, striatis, interstitiis haud carinatis, seriatim granulosis; corpore infra pedibusque albescenti-squamosis, illo disperse punctato, punctis subnitidis. Long. 8–10 lin.

*Hab.* Swan River.

At present this is the largest species of the genus. It is more like *R. granulosa* than any other, but differs in the rostrum, frontal crests, &c., and the elytra are not ribbed as in that species.

*Rhinaria faceta.*

*R.* oblonga, nigra, griseo-squamosa et albo-plagiata; fronte subtriverrucosa, verrucis oblongis, modice elevatis; rostro antice excavato, in medio supra carinato, a fronte haud disjuncto; antennis nigris; prothorace utrinque ampliato-rotundato, postice angustato, basi apice fere æquali, disco reticulato-granuloso, in cavitatibus albo- et griseo-squamoso; scutello angustato, albo; elytris prothorace triplo longioribus, striato-punctatis, punctis confertis, basi singulorum unisquamosis, interstitiis seriatim granulosis, granulis minutis; griseis, extus albo-triplagiatis, una basali, una mediana, tertiaque præapicali, sitis; corpore infra pedibusque albis, griseo-nebulosis. Long. 4 lin.

*Hab.* South Australia.

A very distinct species in its coloration, but somewhat resembling *Rhinaria maculosa*, Schön.

Xynæa.

*Rostrum* arcuatum, validum, modice elongatum, lateraliter angulatum, basi infra compressum; *scrobe* basali, breve, oculum non tingente. *Oculi* ovati, fronte distantes. *Antennæ* ante medium rostri insertæ; *scapo* oculi superante, clavato; *funiculo* 7-articulato, articulis duobus basalibus brevibus; *clava* ovata. *Prothorax* transversus, convexus, apice et lateribus rotundatis, basi subbisinuatus, lobis ocularibus obsoletis. *Scutellum* nullum. *Elytra* basi prothorace æqualia, lateraliter

valde rotundata, apicem versus subattenuata, apice ipso dehiscentia. *Pedes* mediocres, antici longiores; *femoribus* medio incrassatis; *tibiis* rectis, muticis, anticis intus apice emarginatis; *tarsis* brevibus, articulo penultimo bilobo; *unguiculis* basi connatis. *Abdomen* segmento primo breviusculo. *Processus* interfemoralis angustus, antice angulatus.

Evidently nearly allied to *Synaptonyx*, Waterh., but without ocular lobes, with two unusually short basal joints to the funicle, and the interfemoral process narrow and angulated anteriorly. Mr. Waterhouse says that the scape does not extend to the eye; but this is probably an error, as M. Lacordaire places it with *Tanyrhynchinæ*. I am indebted to Mr. Odewahn for my example.

*Xynæa saginata.* (Pl. XVII. fig. 2.)

*X.* breviter ovata, picea, sparse setosa, squamis albidis dense tecta; rostro apicem versus carinato, antice squamoso, infra piceo; capite parvo, impunctato; prothorace vage punctato; elytris subseriatim punctatis, punctis subremotis, apicibus breviter acuminatis; corpore infra pedibusque albido-squamosis. Long. 2 lin.

*Hab.* South Australia.

Simallus.

*Caput* exsertum. *Rostrum* brevissimum, crassum, medio canaliculatum, apicem versus triangulariter emarginatum; *scrobe* arcuata, laterali, versus oculos latiori. *Oculi* mediocres, rotundati. *Antennæ* subgraciles, in medio rostri insertæ; *scapo* thorace attingente; *funiculo* 6-articulato, art. duobus basalibus reliquis paulo longioribus, totis obconicis; *clava* elongato-ovata. *Prothorax* transversus, apice angustior, postice fere truncatus, pone oculos lobatus. *Scutellum* minutum, depressum. *Elytra* ovata, humeris obsoletis. Cætera ut in *Episomo*, sed corbulis posticis apertis.

This genus appears to be closely allied to *Episomus*, notwithstanding its lobed prothorax; the lobe, however, does not seem to interfere with the eye, and on this account is probably of less importance than it otherwise would have been.

*Simallus sulcicollis.* (Pl. XVII. fig. 8.)

*S.* ovatus, niger, squamis minutis griseis densissime tectus, lateribus fuscis et infra albo-argenteo vittatis; capite rostroque omnino squamosis, vage punctatis, illo inter oculos bilobo, hoc in medio profunde canaliculato; spatio triangulari nigro, nitido, marginibus ciliatis; antennis totis griseo-squamosis; prothorace dorso reticulato-impresso, medio sulcato; elytris basi prothorace vix latioribus, striato-punctatis, punctis valde determinatis, nigris, interstitiis latis, vix elevatis, sparse setulosis, setulis adpressis: postice gibbosis, apicem versus incurvatis, dein com-

pressis, apice ipso verticali, angulato; corpore infra pedibusque omnino squamis griseis tectis. Long. (rost. incl.) 6 lin.

*Hab.* Burmah.

HYOMORA.

*Rostrum* breviusculum, validum, apicem versus arcuatum, supra trisulcatum; *scrobe* apice curvata, profunda, ad frontem oculi percurrente, sensim latiore et evanescente. *Oculi* subovati, depressi. *Antennæ* mediocres, præapicales; *scapo* clavato, ad medium oculi extenso; *funiculo* 7-articulato, articulo primo elongato, secundo breviori, reliquis moniliformibus; *clava* ovata, acuminata. *Prothorax* convexus, lateribus rotundatus, apice angustior, basi truncatus, lobis ocularibus productis, ciliatis. *Scutellum* nullum. *Elytra* ovata, connata, humeris rotundatis. *Pedes* mediocres, attenuati, postici paulo longiores; *femoribus* sublinearibus, muticis; *tibiis* subrectis, compressis, in medio crassioribus, uncinatis, apice productis, corbulis posticis cavernosis; *tarsis* angustatis, haud spongiosis, articulo penultimo integro. *Processus* interfemoralis antice rotundatus.

I should have been inclined to place this genus near *Tropiphorus*, but for its linear tarsi. *Styliscus* and *Cladeyterus* have the same exceptional tarsi; the latter has also apparently a similar ovate convex outline, and is likened by Schönherr to *Otiorhynchus ligustici*. The species described below appears to me to resemble most nearly *Omias Bohemanni*, but is considerably larger. The two genera mentioned above are unknown to M. Lacordaire, but they may possibly prove to be connected with this genus.

*Hyomora porcella*. (Pl. XVII. fig. 17.)

*H.* ovata, fusco-brunnea, setosula, squamulis griseis brunneisque tecta; rostro squamuloso, supra trisulcato (vel quadricarinato), sulco intermedio longiore; prothorace creberrime punctato; elytris striatis, interstitiis foveato-impressis; corpore subtus albido-squamuloso, punctato; pedibus setulosis, dense albido-squamosis. Long. 3 lin.

*Hab.* Dammara-land.

AROMAGIS.

*Rostrum* validum, rectum, fere cylindricum, capite duplo longius; *scrobe* obliqua, profunda, in basi rostro subtus cum opposita fere connexa. *Oculi* rotundati, laterales. *Antennæ* breves, ante medium rostri insertæ; *scapo* gradatim incrassato, oculum haud attingente; *funiculo* 6-articulato, articulis duobus basalibus breviusculis, cæteris sensim latioribus; *clava* ovata. *Prothorax* convexus, suboblongus, lateribus rotundatus, apice angustius, basi truncatus, pone oculos haud lobatus. *Elytra* oblonga, basi latiora, humeris vix productis. *Pedes* validi; *femoribus* haud clavatis; *tibiis* incrassatis, muticis; *tarsis* æqualibus, dilatatis, articulo ultimo triangulari, præcedenti haud longiore; *un-*

*guibus* liberis. Coxæ anticæ contiguæ. *Abdomen* segmentis duobus basalibus majoribus. *Processus* interfemoralis, triangularis.

It is possible that this genus may be best placed, for the present, near *Atelicus*. The legs, especially the broadly dilated tarsi, are very similar, except that they do not want the terminal joint, which is, however, very short, and but just filling up the cleft of the preceding joint, in the species described below. The colour varies from ashy brown to reddish brown or ferruginous. In habit it bears a striking resemblance to *Chætectetorus*.

*Aromagis echinata*. (Pl. XVII. fig. 3.)

*A.* oblongo-ovata, cinereo- vel rufo-fusca, tomentosa, supra squamis erectis instructa; capite inter oculos squamoso-cristato, medio linea impressa; rostro squamoso, apice paulo depresso; prothorace basi constricto, squamis erectis numerosis, plurimis fasciculatis, dispersis; scutello parvo, rotundato; elytris oblongis, sensim parum angustioribus, apice rotundatis, striato-punctatis, squamis erectis triplici serie obsitis, postice utrinque callis duobus squamoso-fasciculatis; corpore infra fusco- vel ferrugineo-squamoso; pedes squamis erectis tecti. Long. $3\frac{1}{2}$ lin.

*Hab.* South Australia; New South Wales.

ÆSIOTES.

*Rostrum* crassum, difforme, medio haud sulcatum; *scrobe* obliqua, profunda, sub margine oculi tingente. *Oculi* subprominuli, infra angustati, acuminati. *Antennæ* subapicales; *scapo* brevi, oculum attingente; *funiculo* 7-articulato, duobus basalibus longiusculis; *clava* ovata. *Prothorax* angustus, oblongus, lateribus irregularis, basi bisinuatus, apice supra productus, infra late emarginatus; lobus ocularis valde determinatus et ciliatus. *Scutellum* oblongum. *Elytra* prothorace basi multo latiora, inæqualia, postice declivia. *Pedes* subteretes; *femoribus* subclavatis, muticis; *tibiis* rectis, inermibus, corbulis posticis apertis; *tarsis* articulis tribus basalibus latitudine fere æqualibus, art. ultimo elongato; *unguibus* liberis. *Metasternum* elongatum. *Abdomen* segmentis duobus basalibus majoribus. *Processus* interfemoralis anguste subrotundatus.

A remarkable genus allied to *Leptops*, but radically distinct in its open posterior corbels, differently formed rostrum, and elongate metasternum.

*Æsiotes notabilis*. (Pl. XVII. fig. 16.)

*Æ.* oblongus, niger, squamis griseo-metallicis ornatus; capite, fronte et supra oculos depresso; rostro squamoso, basi linea arcuata impressa, dein gibboso, lateribus sulcatis, apice triangulariter impresso; antennis scapo squamoso, funiculo parce setoso; prothorace fere duplo longiore quam latiore, quadri subseriatim longitudinaliter tuberculato, apice tuberculis duobus elevatis instructo, lateribus fusco-nebulosis; scutello

basi constricto; elytris subovatis, dorso depresso, tuberculato, fuscescente, lateribus seriatim curvato-sulcatis, sulcis subfoveatis, interstitiis tuberculatis, postice exeuntibus, declivitate tuberculo elongato instructa, apice dehiscentia, obtuse mucronata; corpore infra pedibusque dense griseo-squamosis. Long. 7 lin.

*Hab.* Queensland.

SIGASTUS.

*Rostrum* robustum, breviusculum, supra integrum, apicem versus dilatatum; *scrobe* obliqua, infra oculum excurrente. *Oculi* rotundati. *Antennæ* breviusculæ, pone medium rostri insertæ; *scapo* oculum haud attingente; *funiculo* 7-articulato; *articulo* ultimo clavæ adpresso; *clava* breviter ovata. *Prothorax* convexus, transversus, antrorsum sensim attenuatus, basi subbisinuatus. *Scutellum* ovatum. *Elytra* ampla, breviter subovata, dorso elongato, humeris haud prominulis. *Pedes* robusti, æquales; *femoribus* anticis subarmatis; *tibiis* uncinatis; *tarsis* latis, subtus spongiosis, articulo ultimo brevi; *unguibus* basi connatis. *Coxæ* anticæ paulo distantes. *Abdomen* segmentis duobus basalibus majoribus. *Processus* interfemoralis triangularis.

Habit of *Desmidophorus hebes*, Schön.; but belongs to the *Cholinæ* subfamily, and cannot be placed far from *Haplonyx*, to one of whose species (*H. fasciculatus*, Schön.) it bears a very strong resemblance.

*Sigastus fascicularis.* (Pl. XVII. fig. 6.)

*S.* breviter ovatus, niger, squamis griseis adspersus, supra nigro-fasciculatus; capite inter oculos depresso; rostro parce squamoso; antennis ferrugineis; prothorace apice duplo angustiori quam basi, antice fasciculis erectis nigro-squamosis instructo, quatuor quadratim positis, et una minora utrinque duorum anteriorum; scutello ovato, apice subacuto; elytris prothoracis basi multo latioribus, irregulariter sulcatis, singulis triseriatim nigro-fasciculatis, seriebus duabus intimis quadriexternis bifasciculatis, apice singulatim ad suturam oblique, truncato; corpore infra et pedibus sparse griseo-squamulatis. Long. 4 lin.

*Hab.* New South Wales; South Australia.

SYARBIS.

*Rostrum* validum, antice planato-cristatum, apice integrum; *scrobe* arcuata, obliqua, profunda, infra oculum excurrente. *Oculi* transversi, laterales, distantes. *Antennæ* breviusculæ, subapicales; *scapo* brevi, clavato; *funiculo* 7-articulato, art. basali breviusculo, incrassato, cæteris subæqualibus; *clava* ovata. *Prothorax* conicus, apice emarginatus, basi bisinuatus. *Scutellum* oblongum, distinctum. *Elytra* convexa, brevia, parallela, apice rotundata, humeris oblique truncatis. *Pedes* crassi; *femoribus* haud clavatis, muticis; *tibiis* breviter calcaratis; *tarsis* æqualibus, latis, 3-articulatis, articulo tertio rotundato. *Meso-*

*sternum* medio excavatum. *Abdomen* segmentis duobus basalibus maximis, connatis, 3–4 brevissimis. *Pygidium* obtectum.

On the whole I think that this curious little insect approaches more nearly *Gonipterus* than any other known to me. The habit is something like *Euops Australasiæ*, but more convex. The tarsi are those of *Atelicus*.

*Syarbis pachypus.* (Pl. XVII. fig. 1.)

*S.* ferrugineus, subnitidus, glaber; capitis vertice rotundato, subtiliter punctato, pone oculos constricto; antennis nitidis, pallidioribus; prothorace fortiter et vage punctato, lobo scutellari truncato; *elytris* oblongo-quadratis, prothorace fere duplo latioribus, dorso elevatis, subseriatim punctatis, punctis fortiter impressis; corpore infra pedibusque ferrugineis, vix nitidis. Long. $1\frac{2}{3}$ lin.

*Hab.* Queensland.

Metatyges.

*Rostrum* validum, rectum, basi paulo latius, apice subdepressum; *scrobe* obliqua, sub margine infero oculi desinente. *Oculi* ovati, laterales, distantes. *Antennæ* medianæ; *scapo* clavato, oculum attingente; *funiculo* brevi, 6-articulo, art. basali breviter obconico, secundo minore, cæteris brevissimis, transversis; *clava* magna, funiculo fere æquali. *Prothorax* transversus, conicus, apice truncatus, basi bisinuatus. *Scutellum* magnum, triangulare. *Elytra* quadrato-ovata, dorso elevata, apice rotundata. *Pedes* breves, æquales; *coxæ* anticæ contiguæ, intermediæ valde distantes, posticæ approximatæ; *femoribus* subclavatis; *tibiis* uncinatis; *tarsis* art. duobus basalibus parvis, triangularibus, tertio multo latiore et profunde bilobo; *unguiculis* parvis, liberis. *Abdomen* segmentis longitudine fere æqualibus. *Processus* interfemoralis apice anguste rotundatus.

A very distinct genus, for which I am unable to suggest an ally. But for the contiguous anterior coxæ, I should have placed it with the *Cholinæ*. It is a remarkably short, stout form, suggestive of *Haplonyx*. It is covered with a loose fulvous or ochraceous exudation, which, in fresh specimens, may be brighter and much more abundant than in the one before me.

*Metatyges turritus.* (Pl. XVII. fig. 11.)

*M.* rufo-fuscus, subnitidus, sparse albido-pubescens, et fulvescente farinosus; capite vage punctato, apicem versus rostri evanescente; rostro infra oculos fovea oblonga instructo; prothorace medio paulo planato, utrinque subcalloso, lateribus albescentibus; scutello rufo-brunneo, apice rotundato; elytris irregulariter reticulato-foveatis, humeris rotundatis, lateraliter paulo incurvatis, dein sensim apicem versus rotun-

datis; corpore infra medio læte ochraceo-farinoso; pedibus grisescenti-pubescentibus. Long. 4½ lin. (sine rost.).

*Hab.* Caffraria.

PHYSARCHUS.

Characteres fere ut in *Metatyge*, sed antennæ ante medium rostri insertæ; *scapo* oculi medium attingente; *funiculo* 7-articulato, art. basali pyriformi, secundo longiore, obconico, cæteris modice transversis; *clava* magna, funiculo non longiore. *Elytra* triangularia, antice elevato-truncata, humeris productis. *Pedes* longiores.

This has precisely the habit of *Metatyges*, from which, however, it is strongly separated by the above characters. The eyes are, it may be remarked, rather more frontal, and consequently more approximate in front. There is a sort of saccharine exudation on the specimen I have selected as the type, from which the other is entirely free.

*Physarchus pyramidalis.* (Pl. XVII. fig. 10.)

*P.* fuscus, albido- (vel griseo-) pubescens; capite leviter punctato, medio rostroque linea impressa; prothorace lateraliter albescente vel dilutiore; scutello fusco, medio pallidiore; elytris subcostatis, basi costis magis elevatis; corpore infra pedibusque griseo-pubescentibus. Long. 3–4½ lin.

*Hab.* Fiji.

ILACURIS.

*Caput* exsertum, parvum, conicum. *Rostrum* elongatum, tenuatum, vix arcuatum, fere cylindricum; *scrobe* subobliqua, infra oculum exeunte. *Oculi* rotundati, majusculi, antice subapproximati. *Antennæ* in medio rostri insertæ; *scapo* gracili, apice clavato, oculum haud attingente; *funiculo* 7-articulato, ultimo distincto; *clava* attenuata. *Prothorax* elytris latior, elevato-convexus, lateribus rotundatus, apice angustatus, basi utrinque productus. *Scutellum* parvum, elevatum. *Elytra* subtriangularia, basi subdepressa. *Pedes* elongati, intermedii minores; *femoribus* clavatis, apicem versus constrictis; *tibiis* flexuosis, subcompressis, uncinatis; *tarsis* æqualibus, articulo basali elongato-triangulari, secundo triangulari, tertio dilatato, bilobo, ultimo elongato; *unguibus* liberis. *Coxæ* anticæ paulo distantes; intermediæ remotæ. *Abdomen* segmentis duobus basalibus multo majoribus, connatis. *Processus* interfemoralis apice angulatus. *Pygidium* paulo exsertum.

A very distinct form, allied to, and in general aspect resembling, *Sphadasmus*, Schön.

*Ilacuris laticollis.* (Pl. XVII. fig. 7.)

*I.* ovatus, niger, squamis fuscis albisque variegatus; capite inter oculos depresso, rostroque sparse squamosis; antennis fuscis, subpubescentibus; prothorace paulo inæquali, fusco, antrorsum valde angustato, in medio

carinato et albo vario; scutello albo; elytris prothorace angustioribus, ad humeros arcte applicatis, sulcatis, interstitiis rugoso-granulatis, apice conjunctim rotundatis; basi et postice griseo subfasciatis; corpore infra pedibusque fuscis, disperse griseo-squamulosis, tibiis anticis intus apice fimbriatis; femoribus posticis subtus dentatis. Long. (rost. incl.) 10 lines.

*Hab.* Queensland.

ASYTESTA.

*Rostrum* longiusculum, subteres, fere rectum; *scrobe* lineari ad angulum inferum oculi exeunte. *Oculi* mediocres, ovati, infra acuminati. *Antennæ* tenues, medio rostri insertæ; *scapo* oculum haud attingente; *funiculo* 7-articulato, art. basali longiusculo, secundo paulo breviore; *clava* breviter ovata. *Prothorax* amplus, base truncatus, antice angustus, lateribus rotundatus, lobis ocularibus latis, ciliatis; canalis pectoralis inter pedes intermedios antice desinens. *Scutellum* parvum. *Elytra* subtrigonata, prothorace non latiora, convexa. *Pedes* elongati, tenuati; *femoribus* subarmatis; *tibiis* fere rectis, uncinatis; *tarsis* longiusculis, articulis duobus basalibus ciliatis, penultimo bilobo, infra spongioso, ultimo biunguiculato. *Coxæ*, præsertim posticæ, valde distantes. *Abdomen* segmentis duobus basalibus majoribus, connatis. *Processus* interfemoralis antice subangulatus.

There is a great similarity between this and the Chilian genus *Rhyephenes*, Schön., from which it will be at once distinguished (*inter alia*) by its "*vibrissæ*" or ciliated ocular lobes. It is also allied to *Arachnobas*, Bois., notwithstanding that the latter has no pectoral canal. Just as *Asytesta humeralis* is a *Rhyephenes cacicus* in miniature, so a second species of *Asytesta* bears a most striking resemblance in the distribution of its white stripes (on a black ground) to *Arachnobas gazella*, Ol.

*Asytesta humeralis.* (Pl. XVII. fig. 13.)

*A.* ovata, nigra, opaca; capite fronte depresso; rostro in medio supra rugoso-punctato; antennis ferrugineis, nitidis; clava murino-pubescente; prothorace elytris paulo latiore, confertim scrobiculato, granulis numerosis nitidis dispersis; elytris brevibus, lateribus basi parallelis, rugoso-sulcatis, interstitiis granulis nitidis instructis, sulcis exterioribus foveolatis, regione humerali macula magna albo-squamosa; corpore infra pedibusque squamis minutis griseis dispersis. Long. 3 lin.

*Hab.* Moluccas.

THYESTETHA.

Characteres fere ut in *Arachnoba*, sed *canalis* pectoralis adest inter pedes posticos protensus; *coxæ* anticæ et intermediæ contiguæ; et *femora* infra canaliculata.

These characters are, I think, sufficient to separate generically the

insect here described from the two well-known species of *Arachnobas*, which, though somewhat similar in general outline, are so different in other respects as scarcely to suggest any affinity between them.

*Thyestetha nitida.* (Pl. XVII. fig. 20.)

*T.* subelliptica, nigra, nitida, glabra; capite fronte convexo, impunctato, inter oculos rude punctato; rostro ferrugineo, subtiliter punctato, utrinque basi albo-squamoso; antennis ferrugineis; prothorace fere conico, lateribus leviter rotundato, vage punctato, pone oculos squamis albis tecto; elytris rufis, basi prothorace haud latioribus, seriatim punctatis, seriebus distantibus, punctis distinctis, pone medium gracile attenuatis, apice conjunctim rotundatis; corpore infra albo-squamoso; pedibus nigris, disperse albo-squamosis; tarsis ferrugineis. Long. $2\frac{1}{2}$ lin.

*Hab.* Aru.

Odoacis.

Characteres ut in *Mecopo*, sed *clava* antennarum art. basali brevi; *pedes* antici mediocres, coxæ propriæ spina acuta armatæ; *femora* postica longissima, incrassata, haud linearia; *elytra* prothorace latiora; *propectus* maris muticum; et *coxæ* posticæ valde distantes.

The great length of the anterior legs of the male is the most striking feature in *Mecopus*, while in this genus the posterior legs, or rather thighs, almost as long as the insect itself, are nearly as remarkable. It is very curious to notice that the two spines arising from the breast, just in front of the anterior coxæ, in *Mecopus*, are in *Odoacis* attached to the coxæ themselves.

*Odoacis grallarius.* (Pl. XVII. fig. 24.)

*O.* elliptico-ovatus, depressiusculus, ater, squamis ochraceis parce adspersis; rostro subtiliter punctato, infra oculos ad medium tricarinulato; oculis intus late emarginatis; antennis ferrugineis, nitidis; prothorace antice in medio carinato, angulis posticis acutis, emarginatis, dorso crebre foveato, foveis squamositate ochracea indutis; scutello obovato, postice latiore; elytris lateribus antice parallelis, dein sensim angustatis, apice conjunctim rotundatis, dorso basi subdepressis, rugoso-sulcatis, parce ochraceo-squamosis, lateribus profunde foveato-sulcatis, angulis anticis dentibus quinque vel sex instructis; corpore infra nigro, sternis foveatis, ochraceo-squamosis; pedibus nigris, squamositate ochracea tectis; femoribus posticis apice et tibiis dimidio basali, nigris, glabris; tibiis posticis brevibus, curvatis, compressis. Long. $2\frac{1}{2}$–6 lin.

*Hab.* Siam.

Semio.

*Rostrum* modice elongatum, subarcuatum, apicem versus paulo depressum; *scrobe* brevissima, recta, laterali, oculum desinente. *Oculi* rotundati,

laterales. *Antennæ* ante medium rostri insertæ; *scapo* brevi; *funiculo* 7-articulato, art. duobus basalibus longiusculis, cæteris brevibus; *clava* ovata. *Prothorax* transversus, antice angustatus, productus, lateribus rotundatus, basi bisinuatus et scutellum versus valde productus, canalis pectoralis inter pedes intermedios protensus. *Elytra* late ovata, depressa, lateribus apiceque rotundatis. *Pedes* breves, intermedii paulo minores; *femoribus* validis, compressis, haud clavatis, dente subtus armatis; *tibiis* arcuatis, compressis, calcaratis; *tarsis* æqualibus, articulo tertio dilatato, bilobo, ultimo modice elongato. *Abdomen* segmento secundo quam tertio majore. *Processus* interfemoralis nonnihil angustatus, apice subangulatus. *Corpus* depressum.

A broad, depressed *Cryptorhynchus*-form with small lateral eyes; antennæ with an unusually short scape, inserted towards the base of the rostrum, the tibiæ curved and compressed, and the second abdominal segment larger than either of the succeeding segments.

*Semio ricinoides.* (Pl. XVII. fig. 21.)

*S.* late ovata, depressa, nigra, squamis variis dense tecta; rostro nigro, nitido, vage punctato; antennis ferrugineis, nitidis; capite prothoraceque fusco-griseis, hoc lateribus nigro notatis; scutello parvo, rotundato, glabro; elytris seriatim subsulcatis, dorso albo, regione scutellari et maculis irregularibus, extus et pone medium, nigris, cæteris fusco-griseis; corpore infra nigro, subnitido, punctato; pedibus squamis fusco-griseis tectis; femoribus basi nigris, glabris. Long. 4 lin.

*Hab.* Brazil.

EGRIUS.

*Caput* parvum, rotundatum. *Rostrum* tenue, curvatum, basi paulo angustius; *scrobe* laterali, recta, oculum vix tingente. *Oculi* laterales, rotundati, antice distantes. *Antennæ* medianæ; *scapo* gradatim incrassato, apice acuminato-producto, oculum vix attingente; *funiculo* 7-articulato, art. basali obconico, secundo multo longiore, cæteris sensim brevioribus; *clava* elongato-elliptica. *Prothorax* conicus, compressus, dorso elevato, basi bisinuatus et elevatus, scutellum versus productus; canalis pectoralis inter pedes posticos protensus. *Scutellum* nullum. *Elytra* inæqualia, brevia, prothoracis basi multo latiora, abdomine breviora, apicibus obtuse rotundatis. *Pedes* breviusculi, validi; *femoribus* dentatis; *tibiis* brevibus, muticis; *tarsis* articulo penultimo bilobo; *unguiculis* divisis. *Abdomen* subverticale, segmento basali secundo duplo majore. *Processus* interfemoralis angustus.

Allied to *Ceutorhynchus*, but with a well-marked pectoral canal, and (*inter alia*) with the margins of the prothorax and elytra at their junction forming a prominent ridge.

*Egrius camelus.* (Pl. XVII. fig. 9.)

*E.* rhombicus, niger, dense squamosus; capite niveo-squamoso, inter

oculos bispinoso; rostro nigro; antennis ferrugineis, clava fusca; prothorace niveo, basi fusco-squamoso, dorso medio elevato, quadricristato; elytris fusco-squamosis, humeris brunneis, plaga magna regione scutellari niveo-squamosa; corpore subtus pedibusque totis albo-squamosis. Long. 2 lin.

*Hab.* Natal.

ISAX.

*Rostrum* truncatum, rectum, basi omnino cylindricum; *scrobe* recta, oculum tingente. *Oculi* rotundi, subfrontales, distantes. *Antennæ* ante medium insertæ; *scapo* subbrevi; *funiculo* septem-articulato, articulis duobus basalibus elongatis; *clava* modice ovata. *Prothorax* latus, antice valde constrictus, lateraliter rotundatus, basi rectus. *Scutellum* suborbiculare. *Elytra* breviter ovata, humeris paulo productis. *Pedes* breviusculi, crassi, antice vix majores; *tibiæ* uncinatæ; *tarsi* æquales, breves, triangulares, articulo ultimo elongato; *ungues* distincti. *Metasternum* nonnihil elongatum. *Abdomen* segmentis duobus basalibus majoribus, liberis. *Processus* interfemoralis apice rotundatus.

The slender, straight, almost perfectly cylindrical rostrum at the base will distinguish this genus from most of the Cryptorhynchinæ, at least such as belong to the Australian fauna.

*Isax gallinago.* (Pl. XVII. fig. 14.)

*I.* elliptico-ovatus, niger, opacus, squamis griseo-brunneis dispersis; rostro nitido, punctato; antennis ferrugineis, nitidis; clava fusca; prothorace medio leviter excavato, confuse punctato, lateribus vage punctato, utrinque tuberculis squamigeris tribus vix elevatis, quorum uno apice, sito; scutello elevato; elytris substriato-punctatis, punctis foveolatis, singulis tuberculis squamigeris oblongis, vix elevatis, quinque, *scil.* 3 externis, 2 internis: humeris haud projectis, apice conjunctim rotundatis; corpore subtus nigro, parce squamoso, pedibus densius griseo-squamosis. Long. $4\frac{1}{2}$ lin.

*Hab.* Queensland.

MORMOSINTES.

Characteres generaliter ut in *Poroptero*, sed *articulo* ultimo funiculi clavæ adpresso; *tarsis* linearibus, articulo penultimo integro; *processu* interfemorali antice angulato.

These characters will distinguish this genus from *Poropterus*. It has much the habit of *P. Parryi*, Waterh., but is larger and less scaly. The lines separating the abdominal segments are very deep and decided.

*Mormosintes rubus.* (Pl. XVII. fig. 15.)

*M.* niger, squamis ferrugineis minutis parce dispersis; rostro reticulato-punctato; prothorace antice constricto, bituberculato, in medio carinato,

dorso utrinque intricato-tuberculato, lateribus ante medium tuberculo conico valido instructo; scutello nullo; elytris ovatis, convexis, postice declivis, apice truncatis, angulo externo tuberculo terminato, ad suturam tuberculis oblongis seriatim dispositis, utrinque tuberculis plurimis, quorum sex validis conicis; corpore subtus nigro, ferrugineo-squamoso; pedibus squamis numerosis tectis. Long. 11 lin.

*Hab.* Queensland.

BLEPIARDA.

*Rostrum* elongatum, arcuatum, subteres; *scrobe* laterali, lineari, profunda, ad oculum desinente. *Oculi* mediocres, rotundati, antice modice distantes. *Antennæ* apice insertæ; *scapo* longo, apice crassiore; *funiculo* 7-articulato, art. primo longiusculo, secundo multo longiore, cæteris brevibus, æqualibus, ciliatis; *clava* elongata, solida. *Prothorax* transverse subconicus, basi bisinuatus, apice paulo productus, pone oculos ciliatus, dorso subdepressus; canalis pectoralis profundus, ad pedes intermedios productus, et postice elevato-emarginatus. *Scutellum* rotundatum. *Elytra* subtriangularia, basi prothorace vix vel paulo latiora, humeris rotundatis. *Pedes* antici longiores, reliqui æquales; *femoribus* linearibus, subtus dente armatis; *tibiis* rectis, compressis, uncinatis; *tarsis* subelongatis, subtus spongiosis, art. penultimo latiore, bilobo, ultimo longiusculo; *unguibus* liberis. *Abdomen* segmentis duobus basalibus majoribus. *Processus* interfemoralis anguste rotundatus.

Without doubt allied to *Protopalus*, Schön.; but its singular antennæ, inserted almost at the apex of the rostrum, are very remarkable and characteristic, as are also the *vibrissæ* or ciliation behind the eyes. There is a second species from Fiji.

*Blepiarda undulata.* (Pl. XVII. fig. 12.)

*B.* subelliptica, fusca, griseo-squamosa; capite inter oculos et vertice impresso; rostro medio carinulato, apice foveato, rugoso-punctato; antennis ferrugineis, funiculo nitido, clava griseo-pubescente; prothorace haud punctato, dorso inæquali; elytris seriatim punctatis, interstitiis paulo elevatis, basi prothorace vix latioribus, postice transversim undulato-cristatis, apicem versus singulis macula flavida ornatis, apice ipso conjunctim rotundatis; corpore infra parce squamoso: segmento primo abdominis postice late emarginato; pedibus griseo-squamosis. Long. 5 lin.

*Hab.* Queensland.

MYRTESIS.

*Rostrum* tenuatum, arcuatum, subangulare; *scrobe* laterali, oculum tingente. *Oculi* oblongi, laterales. *Antennæ* ante medium insertæ, graciles; *scapo* gradatim incrassato; *funiculo* 7-articulato, art. duobus basalibus longiusculis, reliquis sensim brevioribus; *clava* anguste ovata. *Prothorax* ampliatus, transversus, convexus, apice valde angustatus, lateribus rotundatus, basi truncatus, canalis pectoralis inter pedes pos-

ticos fere protensus, postice elevato-marginatus. *Scutellum* minutum. *Elytra* latissima, globosa vel rotundata, prothoracis basi haud latiora, humeris nullis. *Pedes* mediocres; *femoribus* haud clavatis; *tibiis* breviusculis, rectis, linearibus, breviter uncinatis; *tarsis* æqualibus, art penultimo dilatato, bilobo; *unguibus* liberis. *Metasternum* brevissimum. *Abdomen* parvum, segmentis duobus basalibus maximis, tertio et quarto brevissimis. *Processus* interfemoralis latissimus, medio emarginatus.

The sterna of this genus, particularly the metasternum, are remarkably short; so that the anterior, intermediate, and posterior coxæ are almost contiguous, but are widely separated from their fellows by the deep pectoral canal, which is bordered posteriorly or between the two posterior pairs of coxæ by a broad elevated line. The termination of the canal extends so far as to have forced, so to say, the posterior edge of the metasternum into the interfemoral process, and so created the emargination, which will probably prove the strongest character of the genus. It belongs to the Cryptorhynchinæ.

*Myrtesis caligata.* (Pl. XVII. fig. 19.)

*M.* late ovata, tuberculifera, nigra, opaca, squamulis brunneis dispersis; capite et rostro rugoso-punctatis, hoc utrinque linea squamosa instructo, apice granulato; antennis rufo-piceis, nitidis; prothorace apice constricto, dorso inæqualiter impresso, fortiter punctato, in medio carinato; elytris tuberculiferis, tuberculis parum elevatis, postice magis determinatis, basi utrinque macula albo-squamosa; corpore infra nigro; segmentis duobus basalibus abdominis foveolatis; pedibus dense griseo-squamosis. Long. 3 lin.

*Hab.* Queensland.

The following include descriptions of the new species of *Asytesta* and *Blepiarda* alluded to in the foregoing article:—

*Asytesta vittata.*

*A.* ovata, nigra, opaca; capite fronte convexo; rostro supra, præsertim in medio, rugoso-punctato; antennis ferrugineis, nitidis; prothorace elytris fere æquali, confertim scrobiculato, granulis numerosis nitidis dispersis et lineis albis quinque ornato, una mediana, alteris lateralibus; elytris ut in *Asytesta humerali*, sed margine basali ablo et lineis longitudinalibus albis quinque instructo, quarum una suturali, duabus lateralibus; corpore infra pedibusque squamis minutis griseis dispersis. Long. 3 lin.

*Hab.* Moluccas; Aru.

The white lines are distributed almost precisely as in *Arachnobas*

*gazella*, only there is in that species no basal marginal line, and the sutural lines diverge from each other so as to form *two* lines.

Another species of *Asytesta* differs, *inter alia*, in having a much shorter prothorax, not narrowed in front to anything like the same extent as in the two described above. The rostrum is also shorter.

*Asytesta maura.*

*A.* ovata, tota nigra, opaca; capite confertim punctato; rostro mediocri, supra reticulato-foveato; prothorace elytris paulo angustiore, confertim scrobiculato, squamulis setiformibus adsperso, lateribus rotundato, antice haud angusto-producto; elytris breviter ovatis, seriatim tuberculatis, tuberculis magnis elevatis, apicibus nitidis, interstitiis foveatis; pedibus griseo-setulosis; tibiis longitudinaliter sulcatis. Long. 2 lin.

*Hab.* Moluccas.

*Blepiarda lophotes.*

*B.* subelliptica, fusca, squamis albidis et ochraceis tecta; capite inter oculos leviter impresso; rostro haud carinulato, apice excavato; antennis scapo nigro, funiculo ferrugineo, nitido, clava murino-pubescente; prothorace remote punctato, dorso vix inæquali; elytris seriatim oblongo-punctatis, interstitiis haud elevatis, lateribus postice sensim compressis, ad declivitatem elevatis et piloso-cristatis, pilis ochraceo-brunneis, apice rotundatis; corpore infra nigro; segmento primo abdominis late emarginato; pedibus albido-squamosis. Long. 5 lin.

*Hab.* Fiji.

## EXPLANATION OF PLATE XVII.

The fore legs and antennæ are also represented, when not otherwise mentioned.

Fig. 1. *Syarbis pachypus.*
„ 2. *Xynæa saginata.*
„ 3. *Aromagis echinatus.*
„ 4. *Aphela helopoides.*
„ 5. *Methypora postica.*
„ 6. *Sigastus fascicularis.*
„ 7. *Ilacuris laticollis.*
„ 8. *Simallus sulcicollis*, claws, &c.
„ 9. *Egrius camelus*, claws, &c.
„ 10. *Physarchus pyramidalis.*
„ 11. *Metatyges turritus.*
„ 12. *Blepiarda undulata.*
„ 13. *Asytesta humeralis.*
„ 14. *Isax gallinago.*
„ 15. *Mormosintes rubus.*
Fig. 16. *Æsiotes notabilis* (and under side of the prothorax, to show the emargination).
„ 17. *Hyomora porcella.*
„ 18. *Oncorhinus scabricollis*, Schön.
„ 19. *Myrtesis caligata.*
„ 20. *Thyestetha nitida.*
„ 21. *Semio ricinoides.*
„ 22. *Atychoria funesta.*
„ 23. *Myossita rufula.*
„ 24. *Odoacis grallarius* (hind leg, ant. coxæ, &c.).
„ 25. *Ethemaia sellata.*

## XXIX.—*Attempt at a Classification of the* Eumolpidæ.

By J. S. Baly.

(Continued from p. 163.)

### Subfamily II. Myochroinæ.

*Body* apterous or winged, oblong or elongate, convex or subcylindrical, often flattened above, non- or but faintly metallic, clothed with adpressed scale-like hairs or scales. *Thorax* convex or flattened above, lateral surface forming a distinct angle with the disk, lateral border usually entire, sometimes replaced either by a row of irregular teeth, or by a toothed ridge; anterior *episternum* always distinct. *Antennæ* filiform or subfiliform, basal joint short, incrassate; *eyes* usually notched, rarely entire. *Elytra* rarely (*Dictyneis*) soldered together along the suture, punctate-striate, or irregularly punctured, their surface sometimes furnished with longitudinal rows of tubercles. *Legs* moderately robust; *thighs* usually unarmed beneath, rarely toothed; anterior *tibiæ* either simple or armed within just before the apex with a short spine or tooth; four hinder *tibiæ* usually simple, rarely notched at their apices; *claws* appendiculated or bifid. *Prosternum* separated from its episterna by a distinct groove, the latter rarely obsolete.

The present subfamily is of much smaller extent than the preceding, the insects composing it being, however, generally of a larger size; they are dull and sombre, although often possessing a faint metallic tinge, more especially on the elytra, in this as well as in some other characters approaching the third subfamily, the *Bromiinæ*, which are for the most part brilliantly metallic. The *Myochroinæ* differ from the *Adoxinæ* chiefly in the general habit, in the possession of well-defined anterior episterna, and in the form of the thorax; in the *Adoxinæ* this part of the body is more or less cylindrical above, its lateral border obsolete, and its lateral surfaces usually forming with the disk the segment of a circle; in the *Myochroinæ* the disk always forms a distinct angle with the side portion or "*ora*" of the thorax; it is frequently (as in *Myochrous*) flattened in the middle, the lateral margins being always more or less distinctly developed; the claws in the great majority of the species are appendiculated, and not toothed or bifid as (on the contrary) is the case in nearly all the genera of *Adoxinæ*. *Pachnephorus*, by its notched hinder tibiæ, as well as through habit and other characters, forms a strong connecting link between the present subfamily and the *Typophorinæ*; in fact, for some time I hesitated in which of the two subfamilies I should place the genus; lastly, the *Myochroinæ*, through the simple prosternum of *Eryxia*, are allied to the *Bromiinæ*.

The geographical range of the *Myochroinæ* is much more restricted than that of the preceding subfamily, all the genera, with two exceptions, belonging to the American fauna. *Glyptoscelis* is found in North and Central America. The species of *Myochrous* extend from the warmer parts of North America southwards to Chili, Columbia being apparently their metropolis. *Dictyneis*, which has been hitherto confounded with the genus *Myochrous*, is exclusively Chilian. *Pachnephorus* stretches over a vast geographical area,—eight or nine species being natives of Middle and Southern Europe, one of Continental India, one or more of the Malay Archipelago, and two of Southern Africa*. *Eryxia* is at present found only in Africa, the single species on which the genus is erected having been sent by the late Dr. Baikie from the banks of the Niger.

*Table of Genera.*

A. Apterous; elytra soldered together at the suture .. 1. *Dictyneis.*
B. Winged; elytra not united at the suture.
  I. Prosternum separated from the episterna by sutural grooves.
    1. Sides of the thorax, often interrupted at base and apex, always armed with irregular teeth ..... 2. *Myochrous.*
    2. Sides of the thorax always entire, unarmed.
      *a.* Four hinder tibiæ simple ..... 3. *Glyptoscelis.*
      *b.* Four hinder tibiæ notched at the apex ..... 4. *Pachnephorus.*
  II. Prosternum united in a continuous piece with its episterna, sutural grooves obsolete .... 5. *Eryxia.*

Genus Dictyneis.

*Myochrous* (part), Blanch. in Gay's Faun. Chil.

Apterous. *Body* elongate or oblong, very convex, often subcylindrical, non-metallic, closely covered with adpressed scales or scale-like hairs. *Head* deeply buried in the thorax, perpendicular; *antennæ* long, slender, filiform, sometimes slightly thickened towards the apex, first joint incrassate, second very short, third equal in length to or longer than the two preceding united. *Thorax* subcylindrical above, disk forming a distinct angle with the *ora*, lateral margin defined, but without a regular border, frequently armed with one or more short irregular teeth.

* Leconte, in his edition of 'Melsheimer's Catalogue,' places three North American species in this genus: the first, 10-*notatus*, Say, belongs to *Xanthonia*, a genus of *Adoxinæ*; the two others I do not know, but greatly doubt their being true *Pachnephori*.

*Scutellum* small. *Elytra* closely soldered together along the suture, narrowed posteriorly, convex, often flattened along the back, irregularly punctured, usually furnished with longitudinal rows of tubercles. *Legs* subelongate, moderately robust; *thighs* narrowed at the base, moderately thickened, each frequently armed beneath with a short tooth, the front pair rather thicker than the others; *tibiæ* often thickened at the apex; this part in the anterior pair more or less incurved; *unguiculi* appendiculated. *Prosternum* broad, separated on either side from its episterna by a deep groove; anterior *episternum* scapulariform.

Type, *Dictyneis* (*Myochrous*) *pulvinotus*, Blanch. Chili.

The apterous body and soldered elytra divide *Dictyneis* from *Myochrous*, with which genus in other characters it is closely allied; the insects belonging to it are hitherto found only in Chili and the Argentine Republic. The present genus is (as far as our knowledge extends) the only apterous one in the whole family of Eumolpidæ; the insects belonging to it have, from their gibbous and tuberculate elytra, a peculiar facies by which they are easily recognizable; many of the species have been described by Blanchard in the Faun. Chil.: more recently several others have been characterized by Philippi in the Stettin. Ent. Zeit. The collection made in the Argentine Republic by M. Germaine, now in my possession, contains a fine series of species of the genus, including several new.

### Genus Myochrous, Erichs.

Consp. Ins. Col. Peruanæ, p. 164.

Winged. *Body* elongate, parallel, subcylindrical, more or less flattened above, non- or faintly metallic, clothed with adpressed scales or scale-like hairs. *Head* inserted in the thorax, perpendicular; *antennæ* subfiliform, moderately slender, rather longer than half the body, basal joint incrassate, second very short, third about equal to the first in length; *eyes* entire or notched. *Thorax* above transversely convex, flattened in the middle of the disk, the latter forming a distinct angle with the lateral portion; side margin distinct, frequently dilated, its outer edge armed with irregular teeth (in some species the anterior portion is obsolete); the apical margin sometimes anteriorly produced. *Scutellum* small. *Elytra* parallel, subcylindrical, more or less flattened along the back, not soldered at the suture, upper surface closely punctate-striate. *Legs* of normal length, moderately robust; *thighs* slightly thickened (the anterior pair distinctly thicker than the rest), frequently furnished beneath with a short tooth; anterior *tibiæ* incurved, often armed on their inner surface with a short tooth; *unguiculi* appendiculated. *Prosternum* separated on each side from its episterna by a distinct groove; anterior *episternum* scapulariform.

Type, *Myochrous immundus*, Erichs. Peru.

The insects composing this very natural genus, although not very numerous in species, are scattered over a large extent of the American continent; the narrow parallel habit of *Myochrous*, as contrasted with the shorter, more convex, and posteriorly attenuated form of *Dictyneis*, will, without reference to structural characters (which also afford abundant points of difference), separate the two genera at first sight: from *Glyptoscelis* (with which genus it agrees more closely in form) it may be known by its appendiculated claws, toothed sides of thorax, and the squamose clothing of the elytra.

Genus Glyptoscelis, Leconte.
Proc. Acad. Philad. 1859, p. 81.

Winged. *Body* elongate, subcylindrical, metallic, covered with adpressed scale-like hairs. *Head* perpendicular, scarcely exserted, the forehead convex; *antennæ* filiform, scarcely thickened towards the apex, longer than half the body, basal joint thickened, second shorter than the first, third and following joints each about equal in length to the first, four or five upper joints, slightly thickened; *eyes* large, their inner edge broadly notched; apex of *maxillary palpus* ovate, obtuse. *Thorax* convex or transversely convex, disk forming a distinct angle with the lateral portions; side margin distinct, entire, unarmed. *Scutellum* of moderate size, obtuse or truncate. *Elytra* parallel, the apex of each usually produced into an acute process, more rarely conjointly rounded, above subcylindrical, irregularly punctured. *Legs* moderately robust; *thighs* simple, unarmed; *tibiæ* with their outer surface strongly grooved; *unguiculi* bifid. *Prosternum* separated from the anterior episternum by a deep groove.

Type, *Glyptoscelis æneipennis*, Baly. Venezuela.

The known species of *Glyptoscelis*, few in number, are natives of the southern portion of the United States and of Columbia. From *Myochrous* the genus is separated by the entire, unarmed sides of the thorax, as well as by the irregular puncturing of the elytra: from *Pachnephorus* it is divided by the unnotched hinder tibiæ, and by the form of the scale-like hairs clothing the upper surface of the body.

Genus Pachnephorus, Redt.
Faun. Austr. i. p. 565. 569.

Winged. *Body* elongate, subcylindrical, non- or faintly metallic, clothed with adpressed, bifid or emarginate scales*. *Head* inserted in the thorax, perpendicular; *front* often swollen and convex; *antennæ* sub-

* The scales on the upper surface of *Pachnephorus cylindricus*, a common European species, are very minute, and apparently entire at their apices, those on the legs and under surface of the body are, however, bifid.

filiform, distinctly thickened towards the apex, basal joint incrassate, second nearly as long as the first, moderately thickened, third not longer than the second, five upper joints slightly compressed and gradually increasing in thickness; *eyes* prominent, their inner edge slightly sinuate. *Thorax* subcylindrical above, lateral margin distinct, entire, unarmed. *Scutellum* moderate in size. *Elytra* parallel or subparallel, subcylindrical, punctate-striate. *Legs* moderately robust; *thighs* simple; four hinder *tibiæ* each notched on their outer edge, near the apex; *unguiculi* appendiculated or toothed. *Prosternum* broad, separated from the episterna on either side by a deep grove; anterior *episternum* scapulariform.

Type, *Pachnephorus tessellatus*, Dufts. Europe.

The notched hinder tibiæ, together with the bifid scales, will distinguish this genus from its allies. *Pachnephorus* is one of the genera found beyond the confines of America. The species inhabit Europe, India, the Malay Archipelago and Southern Africa. They appear, however, most abundantly in middle and eastern Europe.

### Genus Eryxia, Baly.

*Body* elongate, subcylindrical, submetallic, closely clothed with narrow, adpressed scales. *Head* perpendicular, moderately buried in the thorax; *face* broad; *antennæ* subfiliform, five upper joints slightly thickened, first and four following joints of nearly equal length, the basal one thickened; *eyes* prominent, entire. *Thorax* subcylindrical above, lateral margin entire. *Elytra* scarcely broader than the thorax, parallel, irregularly punctured. *Legs* moderately robust; *thighs* simple; four hinder *tibiæ* each slightly notched on its outer edge, near the apex; *unguiculi* appendiculated. *Prosternum* forming a single piece with its episterna, sutural grooves obsolete.

Type, *Eryxia Baikii*, Baly. Banks of Niger.

This genus may be looked upon as a connecting link between the *Myochroinæ* and the next subfamily: with the former it agrees entirely in general appearance, narrow subcylindrical form, and in the squamose clothing of the body; with the latter it is connected through the absence of the sutural grooves between the prosternum and the anterior episterna, being the only genus belonging to the present subfamily in which these latter are absent. The only known species was collected by the late Dr. Baikie on the banks of the Niger.

### *Eryxia Baikii*, Baly.

*E.* narrow, elongate, subcylindrical, obscure cupreo-æneous; legs rufous; whole body closely clothed with narrow, adpressed, pale fulvo-fuscous scales; outer half of antennæ black.—Long. $2\frac{1}{2}$ lin.

*Hab.* Banks of the Niger.

Thorax scarcely longer than broad; sides rounded, converging at base and apex; the fuscous scales on the surface are mixed with griseous scales, which form several ill-defined longitudinal rows, one more distinct than the rest running down the middle of the disk. The scales on the elytra also have intermingled with them both griseous and darker fuscous scales, which form here and there ill-defined patches on the surface.

### Subfamily III. Bromiinæ.

*Body* winged, broadly oblong-ovate or oblong, rarely elongate, very convex or subcylindrical, usually metallic, often brilliantly variegated with metallic colours, clothed above with coarse hairs. *Head* more or less deeply inserted in the body. *Prosternum* united in a single piece with its episterna, sutural grooves obsolete; *episterna* always well defined. *Thorax* subcylindrical above, disk more or less convex, always forming an angle with the lateral portions of the thorax; *lateral* margin usually entire, rarely (*Syricta*) obsolete at the apex. *Legs* robust; *thighs* simple; *tibiæ* thickened at their apices, intermediate pair usually notched.

The *Bromiinæ* are more robust and of larger size than the majority of the species composing the two preceding subfamilies; many of the species are strikingly beautiful, they are usually metallic, and the pubescence on the upper surface of the body is composed of coarse, suberect or erect hairs, which contrast strongly with the adpressed scale-like covering in the *Myochroinæ* and in the greater number of the *Adoxinæ**. From the *Myochroinæ* (*Eryxia* excepted) the present subfamily may be known by the absence of the sutural grooves between the prosternum and the anterior episterna; in form and size the *Bromiinæ* closely resemble the *Corynodinæ*, but they may be distinguished from that subfamily by the same character, viz. the absence of the prosternal grooves, also by the strongly marked pubescence of the upper surface of the body.

The geographical distribution is very limited. *Bromius* is found in Siam and the Malay Islands, *Lophea* in Burmah, *Acrothinium* in Japan and Northern China, and *Syricta* in Southern Africa.

*Table of Genera.*

A. Claws bifid.

1. Lateral border of thorax entire; club of antennæ five-jointed ..... 1. *Bromius.*
2. Lateral border of thorax obsolete in front; club of antennæ six-jointed..... 2. *Syricta.*

* In some species of *Bromius*, in addition to the usual covering, are a number of decumbent, metallescent hairs, which form large patches on the surface.

B. Claws appendiculated.

1. Joints of tarsus of equal width; body metallic 3. *Acrothinium*.
2. Basal joint of tarsus narrower than the two following joints; body non-metallic ..... 4. *Lophea*.

### Genus Bromius.

Chevr. M.S. (part) in Dej. Cat. 3rd edit., nec Redtenb.

*Trichochrysea*, Baly.

*Body* broadly oblong or oblong, very convex, metallic, covered with coarse suberect hairs. *Head* perpendicular, deeply buried in the thorax; *face* usually of normal width, more rarely in the ♂ broadly dilated, in which case the mandibles are enlarged and prominent, the epistome being deeply emarginate, and produced on either side into a short tooth or process*; *antennæ* subfiliform or subincrassate, the five upper joints more or less thickened, and occasionally compressed and dilated into a distinct club; basal joint thickened, second rather shorter than the first; third, fourth, and fifth, each rather longer than the second, equal, slender, filiform; *eyes* entire. *Thorax* subcylindrical above, lateral border distinct, entire; surface closely punctured, not irregularly excavated. *Elytra* much broader than the thorax, sides parallel, apex broadly rounded; above convex, coarsely punctured, unicolorous or ornamented with brilliant metallic patches. *Legs* robust; *thighs* simple; intermediate pair of *tibiæ* notched on the outer edge near its apex; *unguiculi* bifid. *Prosternum* broad, forming a single piece with its episterna, the sutural grooves obsolete.

Type, *Bromius hirtus*, Fabr. Malay Archipelago.

The name of *Bromius* was first proposed by M. Chevrolat in the 3rd edition of Dejean's 'Catalogue' to receive *Eumolpus vitis* and *obscurus*, two well known European insects; in addition he placed under the same generic head *E. hirtus*, Fab., together with several other allied exotic species, which (beyond slight external resemblances) had no affinity whatever with the typical species. After the lapse of a considerable period the genus *Bromius* was characterized for the first time by Redtenbacher, in his 'Fauna Austriæ,' this author also taking *E. vitis* for his type. Unfortunately, however, in the meanwhile the Rev. W. Kirby, in his work on North American Insects, had erected the American form of *E. vitis* into a genus under the name of *Adoxus*. Consequently *Bromius*, which at the date of Kirby's work was merely a MS. name, was reduced

* The insects possessing the above-named peculiarities in the formation of the head were formerly separated by me under the generic name *Trichochrysea*; as, however, they exist in the male only, the female not being distinguishable from the same sex in *Bromius*, I have not considered it advisable to retain the genus.

(although still used in several of our European catalogues, and applied to *E. vitis*) into a synonym. As it seems a pity that the well-known name of *Bromius* should be entirely lost, I have transferred its use to the exotic portion of the genus (as originally understood by Chevrolat), taking *E. hirtus*, Fab., for the type. Little need be said about geographical distribution, all the species, without exception, being found in India, Birmah, and the Malay Archipelago. The common species *B. hirtus*, Fab., has a much wider range than the rest.

*Note.*—The species of *Bromius* having been described by myself and others under several generic heads, I give for convenience sake a list of all known to me as belonging to the genus.

*Bromius hirtus*, Fabr. ..... India, Malay Archipelago.
—— *Philippinensis*, mihi ..... Manilla.
—— *Hebe*, mihi ..... Siam.
—— *evanescens*, mihi ..... Penang.
—— *vestita* (*Trichochrysea*), mihi ..... Northern India.
—— *Mouhoti* (*Trichochrysea*), mihi.... Cambodia.
—— *Japana* (*Heteraspis*), Motsch. .... Japan.
—— *imperialis* (*Calomorpha*), mihi .... Northern China.

## Genus Syricta.

*Calomorpha*, Stål, Ofvers. af Kongl. Vetens. Akad. Forh. xv. p. 251.

*Body* oblong, convex, metallic, clothed with coarse pubescence. *Head* deeply buried in the thorax, perpendicular; *antennæ* moderately robust, six upper joints thickened and slightly compressed, basal joint thickened, second nearly as long as the first, third, fourth, and fifth about equal in length, slightly increasing in thickness, each scarcely longer than the second; *eyes* entire. *Thorax* subcylindrical above, lateral margin distinct posteriorly, its anterior fourth obsolete, upper surface irregularly pitted. *Elytra* broader than the thorax, their apex broadly rounded; surface coarsely punctured, ornamented with patches of adpressed, pale, metallescent hairs. *Legs* robust; *thighs* simple; intermediate pair of *tibiæ* with their outer edge notched near the apex. *Prosternum* united into a single piece with its episterna, the latter subcuneiform.

Type, *Syricta* (*Calomorpha*) *Walbergii*, Stål. Port Natal.

The present genus was originally established by Dr. Stål for the reception of a beautiful species from Port Natal: *Callimorpha* having been previously used by Latrielle for a Lepidopterous genus, I have been compelled reluctantly to change Dr. Stål's name. *Syricta* may be known from *Bromius* by the imperfect lateral border to the thorax, as well as by six (instead of five) of the upper joints of the antennæ

being thickened and compressed. I only know two species, both from Port Natal; the second, described formerly by myself in this Journal (*antea*, p. 220) as a *Bromius*, I dedicated to H. Bohemann.

### Genus Acrothinium, Marshall.

Recens. Corynod., Proc. Linn. Soc. 1864.

*Body* oblong, convex, metallic, clothed with suberect hairs. *Head* perpendicular, deeply buried in the thorax; *antennæ* subfiliform, five upper joints slightly compressed and thickened, basal joint short, incrassate, second nearly equal in length to the first, four following joints nearly equal, slender, each rather longer than the first; *eyes* with their inner edge very slightly sinuate. *Thorax* subcylindrical above, lateral margin distinct, entire, surface coarsely punctured. *Elytra* broader than the thorax, convex, coarsely punctured, covered with suberect hairs, which are rather more scattered than in *Bromius* and the other allied genera. *Legs* robust; *thighs* produced into an indistinct angle beneath; intermediate *tibiæ* obsoletely notched near the apex; the three lower joints of all the *tarsi* of equal breadth, second joint triangular, third narrowed at the base, semiovate; *unguiculi* appendiculated. *Prosternum* united in a single piece with its episterna.

Type, *Acrothinium Gaschkevitchii*, Motsch. Étud. Entom. 1860, p. 23.

The only species hitherto known as belonging to the genus is found native in Northern China and Japan, where it appears to be common. Both the Rev. T. Marshall and Motschulsky, in their diagnoses, have omitted to notice the pubescence on the upper surface of the body: this character, together with the absence of the sutural grooves between the prosternum and episterna, removes the genus from the *Corynodinæ* to the present subfamily. Motschulsky has described the insect as belonging to *Chrysochus*, a genus with which it has no affinity.

### Genus Lophea, Baly.

*Body* subelongate, parallel, subcylindrical, non-metallic, clothed with coarse suberect hairs. *Head* deeply buried in the thorax, perpendicular; *antennæ* subfiliform, the five upper joints slightly thickened and compressed, first joint incrassate, second short, third, fourth, fifth, and sixth slender, equal, each rather longer than the first; *eyes* entire. *Thorax* transversely convex, subglobose on the disk; lateral border distinct, entire. *Elytra* broader than the thorax, subcylindrical, coarsely punctured. *Legs* robust; *thighs* simple; external surface of intermediate *tibiæ* not notched; basal joint of *tarsus* narrower than the second, the latter triangular, the third broad at the base, transverse, closely articulated with the second, the two conjointly cordate; *un-*

*guiculi* appendiculated. *Prosternum* united with its episterna in a single piece; *episternum* wedge-shaped.

Type, *Lophea melancholica*, Baly. Birmah.

*Lophea* may be known from *Bromius* by its appendiculated claws; from *Acrothinium* by the metallic colour and shorter form of the latter genus, by the different relative lengths of the basal joints of the antennæ, and, lastly, by the different shape of the tarsal joints. In *Lophea* the third joint is distinctly broader than the first, the second being closely articulated with the third, the two conjointly being heart-shaped; in *Acrothinium*, on the other hand, the three joints are of equal width, the second being at the same time less closely articulated with the third.

The species on which I have founded the genus has been recently received from Birmah. I have only seen two specimens, both now in my own collection.

*Lophea melancholica*, Baly.

*L.* elongate, parallel, subcylindrical, black or bluish black, subnitidous, clothed with suberect griseous hairs; thorax and elytra coarsely punctured.—Long. 5 lin.

*Hab.* Birmah.

Head rugose; front impressed with a longitudinal groove; epistome transverse, its anterior margin slightly concave; antennæ two-thirds the length of the body, their five upper joints compressed, slightly dilated, scarcely forming a club. Thorax about a third broader than long, very convex on the disk; sides parallel and sinuate posteriorly, converging in front, anterior and posterior angles acute; surface coarsely punctured (in one of the two specimens that I possess a short, smooth, raised longitudinal line runs along the middle of the disk). Scutellum semiovate, smooth, concave. Elytra much broader than the thorax, parallel, their apex broadly rounded; upper surface subcylindrical, obsoletely impressed below the basilar space, coarsely punctured, clothed like the rest of the body with coarse griseous hairs. Legs robust; all the tibiæ dilated externally at their apices. Breast and abdomen more finely punctured than the upper surface of the body, clothed with silvery pubescence.

My two specimens differ slightly in colour, one is entirely black, the other has a faint bluish tint; in their dull sombre hue they present a strong contrast to the majority of the species belonging to the present subfamily, which are for the most part brilliantly metallic.

Corrigenda.

Page 147, note, for *Heteraspinæ*, read *Myochroinæ*.

# JOURNAL OF ENTOMOLOGY.

No. XIV.—June, 1866.

## XXX.—*Notices of new or little-known Genera and Species of* Coleoptera. By Francis P. Pascoe, F.L.S., &c. (late President of the Entomological Society).

[Concluded from p. 56.]

Plates XVIII. & XIX.

### Part V.

#### Ochrosanis [Cucujidæ].

*Caput* rhomboideum, antice truncatum. *Labium* sat magnum, antice rotundatum. *Mentum* transversum, antice truncatum. *Palpi labiales* parvi. *Oculi* prominentes. *Palpi maxillares* validi, art. ult. securiformi. *Labrum* transverse quadratum. *Mandibulæ* bifidæ. *Antennæ* breves, claviformes*; *scapo* oblongo-ovato, art. 5 antennarum minus longiore; articulo secundo brevi, cæteris obconicis ad septimum sensim crassioribus, ultimo appendiculato duodecimum simulante. *Prothorax* elongato-quadratus, apice emarginatus, basi leviter lobatus. *Elytra* elongata, parallela, abdomine breviora. *Pedes* perbreves; *femora* compressa, ovata; *tibiæ* subfiliformes; *tarsi* heteromeri, paulo dilatati, art. penult. integro. *Coxæ* omnes subcontiguæ, posticæ processu interfemorali spiniformi separatæ. *Abdomen* segmentis æqualibus, ultimo paulo longiore excepto. *Corpus* elongatum, planatum, depressissimum.

The extraordinary flatness of this most singular insect in proportion to its size is, I should think, almost without a parallel among the whole class. Its nearest relationship at present appears to be with *Hemipeplus*, Latr., with which it agrees in a great number of

* This term seems in one quarter to have been misunderstood; I use it to denote "*club-formed*," *i. e.* gradually incrassated from the base to near the apex, where it contracts again,—in contra distinction to "*clavate*" or "*clubbed*," *i. e.* when there is a sudden enlargement or knobbing at the end.

particulars, but from which it essentially differs in the shorter basal joint of the antennæ, and the great length of the elytra, which, notwithstanding, do not cover the abdomen. *Hemipeplus* is known only from a single specimen originally found in Scotland, and which has been redescribed by M. Lacordaire; who, on the other hand, had not seen the cognate genus *Inopeplus**, which, on reference to the first volume of this work, Pl. XVI. fig. 9, will be seen to differ very decidedly in habit. I have dedicated the species to Mr. Dohrn of Stettin, to whom I am indebted for my example.

*Ochrosanis Dohrnii*. (Pl. XVIII. fig. 7.)

*O.* pallide ochracea; oculis nigris.

*Hab.* West Indies.

Pale ochre-yellow, very minutely punctured, and having an exceedingly delicate pubescence above; eyes black; prothorax rather concave towards the base, with a strongly marked fovea near the posterior angle; scutellum transverse, the sides at first parallel, triangular behind; elytra broader than the prothorax, four times as long as broad, but leaving the last and part of the penultimate segment of the abdomen uncovered; abdomen beneath smoky brown, minutely piloso-granulated, sterna ochraceous, smooth; antennæ nearly as long as the head and prothorax together. Length 4½ lines.

Enarsus [Colydiidæ].

*Caput* retractum. *Oculi* subrotundati. *Antennæ* 11-articulatæ, subpilosæ, clava triarticulata. *Palpi maxillares* sensim crassiores. *Mentum* quadratum. *Labium* valde transversum. *Maxillæ* lobo interiore apice hamato. *Prothorax* medio elevatus, lateribus dilatatus, apice fortiter sinuatus. *Elytra* convexa, rugosa, subquadrata, apice late rotundata. *Pedes* modice elongati; *tibiæ* filiformes, inermes, ciliatæ; *tarsi* graciles, articulis tribus basalibus æqualibus, subtus pilosis. *Corpus* amplum, rugosum, marginibus ciliatum.

Allied to *Rechodes*, Er., but the prothorax and elytra ciliated at their margins, not serrated, the tibiæ also ciliated, and the maxillary palpi scarcely securiform. The genus contains one of the finest species among the Colydiidæ, and is perhaps even more like *Aside* and *Byrsax* among the Heteromera than *Rechodes*. I owe my specimens to the kindness of Robert Bakewell, Esq.

* = *Ino*, Lap. A name previously used by Leach for a genus of Moths, and which has been recently revived. Mr. F. Smith, in his Catalogue of Cucujidæ of the British Museum, long ago proposed to substitute "*Inopeplus*." I have recently seen an Australian example of this genus: it was sent as a *Staphylinus*.

*Enarsus Bakewellii.* (Pl. XIX. fig. 1.)

*E.* fuscus, squamosus, indumento terreno-griseo tectus.
*Hab.* New Zealand.

Dark brown, closely covered with a greyish or brownish-grey secretion, and with short, erect, more or less scattered scales; head deeply immersed in the prothorax, forming a nearly continuous line with the dilated margins of the latter; prothorax with a double gibbosity above the head, the dilated margins with two deep pits on each side; scutellum round; elytra slightly margined, deeply foveate, the suture raised in the middle, posteriorly abruptly declining to the apex, the declivity with three large callosities on each side; body beneath and legs with a dull rusty-brown tomentum. Length 4 lines.

Ennometes [Rhipiceridæ].

*Caput* antice brevissimum, labio minuto. *Oculi* magni, prominentes. *Palpi* acuti. *Antennæ* 11-articulatæ; *scapo* modice elongato, curvato, art. 2° obconico, reliquis paulo elongatis, flabellatis. *Prothorax* triangularis, apice truncatus, angulis posticis depressus, basi bisinuatus. *Elytra* prothorace haud latiora, angustata, subparallela. *Tibiæ* sublineares; *tarsi* filiformes, lamellis nullis, articulo ultimo cæteris simul sumptis breviore; *onychium* distinctum. *Coxæ* anticæ et intermediæ approximatæ, valde elongatæ. *Abdomen* segmentis quinque, basali brevissimo. *Corpus* angustum, fere parallelum.

The longer joints of the antennæ of this genus, contrasted with the very short joints in the allied form *Callirhipis*, although apparently not a very decided character, give to those organs such a very different appearance as to necessitate their separation; but in addition to this the tarsi are long, filiform, and with the last joint much shorter than all the preceding together. *Arraphus*, Kraatz, differs most essentially from *Callirhipis* and this genus in the three intermediate joints of the tarsi being bilobed, and very distinctly lamellated beneath. I find, in all the specimens of *Callirhipis* I have examined, only five abdominal segments—not six, as stated.

*Ennometes Lacordairei.* (Pl. XIX. fig. 2.)

*E.* ferrugineus; elytris dense seriatim punctatis, interstitiis paulo elevatis.
*Hab.* Queensland.

Ferruginous, slightly shining, very sparsely pubescent; antennæ cinnamon-brown; head and prothorax closely punctured, the latter with a slight horseshoe depression at the base; scutellum small, *circular*; elytra closely seriate-punctate, the intervals slightly raised; body beneath yellowish brown, rather glossy; legs clothed with stiffish hairs, mixed on the tibiæ with short spinous tubercles. Length 5 lines.

Psacus [Rhipiceridæ].

*Caput* verticale, retractum, antice triangulare. *Oculi* prominuli, rotundati. *Antennæ* 11-articulatæ; *scapo* subgloboso; art. 2 brevi; 3 trigono, ampliato; sequentibus flabellatis; tuberibus antenniferis nullis. *Palpi maxillares* robusti, art. ult. ovali. *Maxillæ* bilobæ, lobis ciliatis. *Prothorax* marginatus, transversus, basi bisinuatus. *Elytra* oblonga. *Pedes* breves; *femora* robusta; *tibiæ* lineares; *tarsi* filiformes, ciliatæ, lamellis nullis, articulo ultimo sine onychio. *Coxæ* anticæ transversæ, haud exsertæ, approximatæ, intermediæ retractæ. *Acetabula* antica magna. *Prosternum* angustum. *Abdomen* segmentis quinque, primo brevissimo.

A second specimen in my collection, which I have very little doubt is the female, differs from the above in its larger size, and the antennæ considerably less flabellate, the third joint slender and cylindrical, the fourth and fifth shorter and trigonate, the latter transversely, so as to make a beginning to the flabellate structure of the remainder. The male individual described above has been, unfortunately, so thickly gummed on the card, that I have had great difficulty in making out the underparts, and have been unable to obtain the lower lip and its palpi. It will be seen, from the description, that this genus fails in two characters hitherto considered essential to the family, viz. the absence of an onychium to the last tarsal joint, and the non-exserted anterior and intermediate coxæ. Nevertheless the antennæ are so entirely conformable that I think there can be little hesitation as to its being a real, although an aberrant, member of the group. The male has a strong resemblance to *Attagenus pellio*; the female I had put aside as a *Dermestes*. If either exists in collections, it will probably be found stowed away among the Dermestidæ.

*Psacus attagenoides.* (Pl. XVIII. fig. 4.)

*P.* oblongus, niger, villosus, indistincte fulvo marmoratus vel maculatus.
*Hab.* South Australia (Gawler).

Oblong, black, sparsely covered with short erect hairs, and obscurely mottled or spotted with fulvous red; antennæ and legs ferruginous, except the black basal joint of the former; scutellum triangular; elytra obsoletely striated. Length 2 lines (♀ 3 lines).

Cnecosa [Telmatophilidæ].

*Caput* verticale, antice subtriangulare. *Oculi* prominuli, rotundati. *Antennæ* ante oculos insertæ, 11-articulatæ, art. 1 subgloboso, 2 breviore, 3 longiore, 4–8 subturbinatis, cæteris clavam magnam oblongam efficientibus, ultimo maximo. *Palpi maxillares* art. ultimo amplissimo, valde transverso. *Maxillæ* lobis duobus subæqualibus, ciliatis. *Labium* minutum. *Mentum* triangulare, apice late truncatum. *Palpi labiales*

incrassati, art. duobus basalibus transversis, ultimo obconico. *Prothorax* transversus, lateraliter marginatus, apice paulo productus, basi ad elytra arcte applicatus, subbisinuatus. *Elytra* brevia, parallela, prothorace paulo latiora. *Pedes* breves; *femora* crassa; *tibiæ* modice elongatæ, subtrigonæ; *tarsi* subpentameri, æquales, articulis tribus basalibus crassis, transversis, quarto minuto, quinto cæteris simul sumptis longiore, unguiculis simplicibus. *Coxæ* anticæ ovatæ, haud approximatæ, intermediæ globosæ, distantes. *Prosternum* quadratum. *Mesosternum* declive, postice bilobatum. *Epimera* metathoracica parallela, postice truncata. *Abdomen* segmentis quinque subæqualibus. *Corpus* fere parallelum.

The subpentamerous tarsi, in the absence of any other striking character, appear to me to indicate the place of this genus to be among the Telmatophilidæ, the genera of which are not, however, very obviously connected, except by the above character.

*Cnecosa fulvida*. (Pl. XVIII. fig. 2.)

*C.* oblonga, clare fulva, leviter pubescens; oculis nigris.

*Hab.* New South Wales.

Oblong, clear fulvous-yellow, with a short, sparse, stiffish pubescence; head and prothorax finely punctured, the latter with an impressed line close to its base; scutellum transverse, slightly contracted at the base; elytra moderately seriate-punctate, with two rows of minute punctures between them; body beneath golden yellow, finely punctured. Length $2\frac{1}{2}$ lines.

Antrisis [Scarabæidæ].

*Caput* transversum, verticale, clypeo inflecto. *Oculi* rotundati, sub angulis anticis prothoracis occulti. *Antennæ* 9-articulatæ; *scapo* elongato, curvato; art. 2 cylindrico, crasso; 3 obconico; 4, 5, 6 transversis; 7, 8, 9 lamellatis. *Mentum* antice rotundatum, in medio emarginatum. *Labium* membranaceum, ciliatum, minutum. *Palpi labiales* cylindrici, breves. *Maxillæ* lobo externo triangulari, interno membranaceo. *Palpi maxillares* elongati, art. ult. elongato securiformi. *Prothorax* transverso-quadratus, longitudinaliter carinatus. *Elytra* prothorace haud latiora, carinata, oblonga; pygidio obtecto. *Pedes* mediocres; *femora* antica et intermedia grossa, postica fusiformia; *tibiæ* tenuatæ, apice paulo dilatatæ, haud serratæ; *tarsi* lineares, postici longiores. *Coxæ* posticæ distantes. *Abdomen* segmentis 6, penultimo majore.

Apparently very closely allied in habit and characters to *Ryparus*, Westw., but differing from that and all the other genera of Aphodiinæ in the widely separated posterior coxæ. My example was kindly presented to me by W. Wilson Saunders, Esq.; another is in Mr. Wallace's Collection.

*Antrisis Saundersii.* (Pl. XVIII. fig. 5.)

*A.* griseo-fuliginea, punctata; antennis palpisque ferrugineis.

*Hab.* Sarawak.

Entirely greyish fuliginous; palpi and antennæ rusty; head with an impressed circular line in front, surrounded with eight tubercles; prothorax with eight strongly marked carinæ, the broad intervals irregularly punctured, the second carina on each side, counting from the two middle, with a deep linear oblique excavation anteriorly; scutellum punctiform; elytra with ten carinæ alternating with those on the prothorax, the intervals with two rows of punctures on each, the three intermediate carinæ on each elytron interrupted near the apex by a deep curved excavation, in which is placed a smooth, yellowish tubercle; body beneath and femora rather roughly punctured. Length $2\frac{1}{2}$ lines.

Intybia [Telephoridæ].

*Caput* antice triangulare. *Oculi* prominentes, ad angulos laterales positi. *Palpi maxillares* robusti, subcylindrici; *palpi labiales* minuti, subfusiformes. *Labium* trapezoidale. *Mentum* quadratum. *Antennæ* ad angulum inferum insertæ, 10-articulatæ; *scapo* elongato-clavato; art. secundo maximo; cæteris sat brevibus, cylindricis vel apicem versus subobconicis. *Prothorax* capite angustior, apice paulo rotundatus, postice constrictus, basi truncatus. *Elytra* obovata, convexa, basi prothorace latiora. *Pedes* graciles; *tarsi* filiformes, 5-articulati, art. ult. trigono.

In habit this genus resembles the females of *Charopus*; but the antennæ and characters generally are those of *Collops*. The eyes are almost semipedunculate, as in the cognate form *Cephalogonius*.

*Intybia guttata.* (Pl. XVIII. fig. 6.)

*I.* nigra, genis flavis; elytris dilutioribus, singulis guttis tribus albis ornatis.

*Hab.* Batchian.

Black; head finely granulated, cheeks yellow; antennæ black, the undersides of the four or five basal joints yellowish; prothorax finely granulated, a deep, transverse, irregular depression near the base; scutellum transversely triangular; elytra paler or smoky black, finely pubescent, each with three distinct white spots, one near the base, and two towards the apex, the innermost approaching the suture; body beneath black, sides of the abdomen yellow. Length $1\frac{1}{2}$ line.

As the greater part of the following belong to the Tenebrionidæ, the subfamilies (corresponding invariably to the "tribes" of M. Lacordaire) are given after their genera.

*Adesmia* eburnea.*

*A.* aterrima; elytris late ovatis, albis, tricostatis, costis remote dentatis.
*Hab.* N'Gami.

Jet-black, shining, the elytra ivory-white; clypeus slightly emarginate; head finely punctured; prothorax impunctate, very transverse, the anterior angles not produced; elytra broadly ovate, very little longer than broad, dead ivory-white, obsoletely impressed, each with three very distinct but slightly elevated costæ, the two inner crowned with sharp, slender, distantly set teeth, the outer with a double row of more closely set and shorter teeth; body beneath and legs black; the abdomen and sterna finely corrugated. Length $4\frac{1}{2}$ lines.

A remarkable species, very distinct from the other white-winged members of the genus (*Langei, candidipennis*, &c.) in the form of the elytra and their toothed costæ. It was taken by Mr. Anderson in South Africa, *somewhere* north of Natal, and towards Lake N'Gami.

Dysarchus [Asidinæ].

*Caput* transversum, *retractum*; *clypeus* fronte confusus, labrum et mandibulas obtegens. *Oculi* transversi, angusti. *Palpi maxillares* fortiter securiformes; *labiales* minuti. *Mentum* transverso-quadratum, angulis anticis rotundatis. *Antennæ* breves, 11-articulatæ; art. 3 longiore; 4–6 brevioribus, subquadratis; 7 breviter obconico; 8–10 transversis et compressis; 11 minore quam præcedens, rotundato. *Prothorax* transversus, ad latera rotundatus, apice semicirculariter emarginatus, basi truncatus, angulis posticis paulo productis. *Elytra* ovato-rotundata, prothorace latiora; epipleuræ basi latæ, postice sensim angustatæ. *Pedes* validi; *tibiæ* anticæ extus compressæ, infra emarginatæ, bidentatæ; posticæ et intermediæ trigonatæ, calcaratæ; *tarsi* infra biseriatim ciliati, intermedii et postici art. ultimo breviore quam primus. *Sterna* et *abdomen* ut in *Asida*.

The clypeus being confounded with the front, nearly hiding the lip and mandible, is a character at variance with the rest of the subfamily. The fore tibiæ are those of *Anomalipus* (placed by Solier in this group); the tarsi, closely ciliated on each side beneath, appear in consequence canaliculate. The granules with which the upper parts are covered rise abruptly out of a greyish exudation, and are very irregular in form and size.

*Dysarchus Odewahnii.*

*D.* obscure niger, granulis nitidis instructus.
*Hab.* South Australia (Gawler).

Dull greyish black, covered above with numerous glossy granules;

* Fischer de Waldheim, Entomogr. de la Russie, i. 153; Lacordaire, Gen. v. p. 23.

head nearly flat anteriorly; antennæ ferruginous, scarcely half the length of the prothorax; the latter with a strongly marked margin at the sides, the granules giving it a serrated appearance at the edge; scutellum triangular, deeply sunk beneath the base of the prothorax; elytra with four prominent granular lines, more or less interrupted, on each, the lines towards the apex gradually disappearing, the intervals with smaller granules; epipleuræ roughly granulose; body beneath black, the abdomen glossy; legs closely punctured, clothed with a thin ferruginous pubescence; teeth on the fore tibiæ strongly produced, especially the apical. Length $5\frac{1}{2}$ lines.

EMEAX [Scaurinæ].

*Caput* subelongatum, collo incrassato. *Oculi* transversi, liberi. *Palpi* subcylindrici. *Mandibulæ* bifidæ. *Mentum* transversum, antice et lateribus rotundatum. *Antennæ* sublineares, art. secundo brevi, tertio breviore quam quartus, cæteris brevioribus et obconicis, ultimo minore quam præcedens. *Prothorax* subtransversus, apice et basi truncatus, lateribus rotundatis et fortiter carinatis, angulis posticis acutis. *Elytra* prothorace vix latiora, oblonga, lateribus leviter rotundatis. *Pedes* mediocres; *tibiæ* subtrigonatæ, bicalcaratæ; *tarsi* postici art. primo subelongato. *Prosternum* productum. *Mesosternum* elongatum, declive. *Processus* interfemoralis quadratus, apice late angulatus.

In the form of the head, the mentum entirely covering the maxillæ, leaving a little only of the lower lip visible, the small terminal joint of the antennæ, and the large intermediate acetabula, this genus approaches some of the Scaurinæ, and particularly in habit *Psammetichus*, Latr. I am not quite sure, however, that a better place may not be found for it eventually.

*Emeax sculpturatus*. (Pl. XIX. fig. 7.)

*E.* niger, opacus; capite prothoraceque rugoso-punctatis, illo in medio cristato; elytris grosse tuberculato-lineatis.

*Hab.* New South Wales.

Black, opake; head coarsely and closely, the neck finely punctured, between the eyes a prominent tuberculiform crest; prothorax closely and roughly punctured, on the disk two large foveæ, the lateral carina crenate; scutellum depressed, triangular; elytra narrowed at the base, the shoulders rounded, each with eight lines of large oblong tubercles, in the interval lines of smaller tubercles; body beneath and legs dull blackish brown, closely punctured. Length 7 lines.

OSSIPORIS [Molurinæ].

*Caput* exsertum, verticale, antice quadratum et excavatum. *Oculi* parvi, rotundati, producti, vel quasi pedicellati. *Palpi max.* art. ult. obconico. *Labium* rotundatum. *Antennæ* attenuatæ, squamosæ, art. tertio elon-

gato, 4° 5°que subæqualibus, 6–9 sensim brevioribus, 10° transverso, 11° globoso-ovato. *Prothorax* fere transversus, convexus, lateraliter angulatus, antice paulo productus, basi sinuatus, disco æquatus. *Elytra* ovata, basi prothorace haud latiora, supra subplanata; *epipleuræ* subangustatæ. *Pedes* graciles; *tibiæ* teretes; *tarsi* post. art. basali quam ultimus longiore. *Prosternum* postice curvatum. *Mesosternum* declive.

The head of this curious insect has a marked resemblance to that of the hippopotamus. The eye is surmounted by a projecting orbit, which causes it to protrude in such a way as to give it the appearance of being almost pedicellate. Below the eyes the face is concave, and is particularly deeply excavated between the antennary orbits. The genus is related to *Phligra*.

*Ossiporis terrena.*

*O.* supra indumento terreno tecta, infra pedibusque squamulis albidis densissime vestita; antennis squamosis, articulis duobus terminalibus nigris.

*Hab.* Natal.

Covered above with an earthy crust, composed of flattish scales and short projecting points; legs and body beneath entirely covered with a uniform layer of flat whitish scales; lower part of the head and lip, and antennæ, clothed with loose whitish scales, the two last joints of the antennæ black. Length $5\frac{1}{2}$ lines.

Onosterrhus [Pedininæ].

Affinis *Pedino*, sed *oculi* non divisi. *Mentum* subcordiforme. *Prothorax* margine laterali limbo replicato. *Tibiæ* sensim latiores, haud trigonatæ. *Tarsi* postici art. basali cæteris simul sumptis fere æquali. *Corpus* valde convexum.

The fold bordering the upper part of the edge of the prothorax is also characteristic of *Trigonopus*; but the fore tibiæ of that genus are even more triangular than those of *Pedinus*, and it also differs in most of the above characters. In its general appearance the species described below resembles *Heliopathes Lusitanicus*, but is larger and much more convex.

*Onosterrhus lævis.*

*O.* niger, subnitidus; capite subtiliter punctato; prothorace elytrisque impunctatis.

*Hab.* Western Australia.

Black, slightly nitid; head finely punctured, concave anteriorly; prothorax impunctate, much broader than the head, well-rounded at the sides, but a little incurved at the base, the posterior angle slightly produced, the lateral margins with a conspicuous uniform fold bordering

its edge, and creating a strongly marked groove on its inner side; scutellum short and very transverse; elytra impunctate, shortly ovate, broader than the prothorax, to which they are closely applied, the shoulders rounded; epipleuræ broad at the base, gradually narrowing to the apex; body beneath and legs smooth and somewhat glossy; antennæ as long as the prothorax, the 8th, 9th and 10th joints transverse, 11th rounded. Length 6 lines.

### Idisia [Opatrinæ?].

*Caput* porrectum, subelongatum, ad oculos retractum. *Labium* valde transversum. *Oculi* rotundati, prothoraci approximati. *Palpi maxillares* cylindrici. *Antennæ* robustæ, ciliatæ, clavatæ, 11-articulatæ, *scapo* crasso, art. 3° longiore, cæteris brevibus, clava triarticulata, art. ult. minore. *Prothorax* transversus, lateribus rotundatus, ciliato-marginatus, apice truncatus, basi bisinuatus. *Scutellum* invisum. *Elytra* ovata, costata; epipleuræ postice angustiores. *Pedes* mediocres; *femora* incrassata, trochanteribus intermediis nullis; *tibiæ* anticæ trigonatæ, cæteris linearibus calcaratis; *tarsi* lineares, antici breves, art. basali brevissimo, intermedii et posteriores elongati. *Coxæ* anticæ globosæ, distantes. *Episterna metathoracica* linearia, epimeris propriis obsoletis. *Prosternum* elevatum, latum. *Mesosternum* declive. *Metasternum* breve. *Processus* interfemoralis mediocris, antice rotundatus. *Corpus* gracile, squamulosum.

Having only a single specimen of this insect, for which, and an extensive collection of Coleoptera made on the coast of Chinese Tartary, I am indebted to Arthur Adams, Esq., R.N., I have not attempted to extract its oral organs; but, judging solely from the characters that remain, I do not see that it can well be referred to any of the numerous groups described by M. Lacordaire. The habit in some respects suggests *Stenosinæ*; but the clavate antennæ, ciliated tarsi, spurred tibiæ, and retracted head are at variance with that subfamily. In its scaly clothing it is similar in character to *Leichenum pulchellum*, but more delicate; and this, in conjunction with its tarsi and trigonate anterior tibiæ, induces me to refer it, although doubtfully, to Opatrinæ.

### *Idisia ornata*. (Pl. XVIII. fig. 8.)

*I.* nigra, squamulis albis tecta; elytris basi ochraceis, in medio fascia grisea irregulari ornata.

*Hab.* Mantchuria.

Black, entirely covered by small white scales; lip glabrous, brown; eyes with subspinous facets, placed at a little distance behind the antennary orbits; antennæ not larger than the prothorax, reddish brown, but with scattered white scale-like hairs; prothorax with a central impressed line; elytra with five elevated lines on each, the first,

second, and fifth or external, only, extending to the base, where they form strongly marked projections, and have an ochreous colour, the middle of the elytra with a darkish irregular band; body beneath black, with scattered setaceous white hairs; legs pale brown, with white scale-like hairs. Length 2¼ lines.

*Nyctobates* Orcus.*

*N.* niger, nitidus; prothorace lævigato, lateribus vix rotundatis, postice angulatim constrictis; elytris punctato-striatis; prosterno lato, tricarinato; tarsis validis.

*Hab.* Western Australia.

Black, shining; head and prothorax impunctate, the latter nearly as broad as the elytra, trapezoidal, the sides anteriorly slightly rounded, then nearly parallel to near the base, where it contracts at an angle; scutellum triangular, below the level of the basal ridge of the elytra; elytra ovate, scarcely broader than the prothorax at the base, punctate-striate, the punctures large, the striæ shallow; body beneath glossy black; prosternum broad, marked with three strong rounded ridges, the lateral not united behind; legs glossy brownish black, tarsi stout, closely covered with bright-yellowish-ferruginous hairs. Length 12 lines.

Differs from *N. crenatus*, Boisd., in the form of the prothorax, the punctate-striate elytra, stouter tarsi, and the prosternum strongly tricarinated throughout.

*Nyctobates feronioides.*

*N.* niger, nitidus; prothorace subtilissime punctulato, lateribus rotundatis, postice incurvato-constrictis; elytris punctato-striatis; prosterno angustato, leviter marginato; tarsis validis, brunneo-castaneis.

*Hab.* New South Wales.

Black, shining; head and prothorax very minutely punctured, the latter narrower than the elytra, fully rounded at the sides, contracted and a little incurved posteriorly; scutellum triangular, continuous with the basal ridge of the elytra; elytra oblong, broader at the base than the prothorax, the shoulders a little recurved, punctate-striate, the punctures rather small, but the striæ deep; body beneath glossy black; prosternum narrowed, pointed behind, slightly margined; legs brownish black, glossy; tarsi stout, brownish chestnut. Length 7 lines.

Besides the smaller size, this species differs from *N. crenatus*, *inter alia*, in the deeper striæ, more strongly, and not crenately, punctured elytra, and stouter tarsi.

* Guérin-Méneville, Mag. de Zool. 1834, p. 33; Lacordaire, Gen. v. p. 371. This genus and the three following should have been placed after the *Bolitophaginæ*.

*Toxicum* punctipenne.*

*T.* nigrum, opacum; cornibus capitis elongatis; prothoracis apice lobato; elytris fortiter lineato-punctatis; antennarum clava triarticulata.

*Hab.* Australia.

Black, opake; head deeply excavated between the four horns, and coarsely and remotely punctured, the posterior horns with a fulvous tuft on the apex; eyes undivided; labrum black; antennæ with the last three joints only forming the club; prothorax moderately transverse, finely punctured, anterior angles scarcely produced, broadly lobed at the apex; scutellum triangular; elytra broader than the prothorax, coarsely punctured in lines; body beneath and legs black, shining. Length $2\frac{1}{2}$ lines.

Near *T. quadricorne*, Fab., but with the club of the antennæ with three joints only, a narrower prothorax, and coarsely punctured elytra.

*Toxicum brevicorne.*

*T.* nigrum, opacum; cornibus capitis brevibus; prothoracis apice haud lobato; antennarum clava triarticulata.

*Hab.* Victoria.

Black, opake; head slightly excavated in front, moderately but more closely punctured; posterior horns short, triangular, with the small tuft of fulvous hairs confined to the anterior part of the apex; lip testaceous-brown; club of the antennæ four-jointed; prothorax slightly transverse, not lobed at the apex, finely punctured; scutellum triangular; elytra lineate-punctate, the punctures of moderate size; body beneath and legs chestnut-brown, shining. Length 4 lines.

A very distinct species, but agreeing with the above in having the eyes undivided: this character and the number of joints (three or four) composing the club seem in this genus to be of secondary value only. I have seen no female either of this or the preceding.

*Uloma† depressa.*

*U.* depressa, pallide rufo-ferruginea; elytris striato-punctatis, punctis distinctis sed parvis; tibiis anticis extus quadridentatis.

*Hab.* Queensland.

Rather broad, depressed, pale reddish or orange-ferruginous, but sometimes much darker; head finely punctured, a slight curved impression in front; prothorax smooth, glossy, minutely punctured; scutellum small, scutiform; elytra striato-punctate, the junctures distinct but rather small; body beneath and legs brownish orange, shining; fore tibiæ with four stout serratures externally towards the apex, the intermediate with five or six small serratures, the posterior smooth on both sides. Length 6 lines.

* Latreille, Gen. Crust. et Ins. ii. p. 167; Lacordaire, Gen. v. p. 341.

† Laporte de Castelnau, Hist. Nat. des Ins. ii. p. 219; Lacordaire, Gen. v. p. 332.

This species is broader and much more depressed than *Uloma culinaris*, Linn., and the fore tibiæ are rather serrated than toothed; the punctures on the elytra are also very much deeper and more distinct.

Dechius [Tenebrioninæ].

*Tenebrioni* affinis, sed differt præcipue *labro* obtecto. *Maxillæ* lobo interno mutico. *Antennæ* articulis 8–10 transversis. *Prothorax* fortiter marginatus, marginibus antice productis.

The characters of *Tenebrio*, like those of perhaps the majority of the genera of Coleoptera, were only exposed in a really definite way in the 'Genera' of M. Lacordaire. Compared with his description, the above formula differentiates the two genera. The habit, moreover, is somewhat different, being more convex and cylindrical, and sufficiently suggestive of the *Aphodius*-form to justify the specific name proposed.

*Dechius aphodioides.*

*D.* fusco-ferrugineus, subnitidus; capite prothoraceque fusco-nigris; elytris fortiter striato-punctatis.

*Hab.* Queensland.

Brownish ferruginous, subnitid; head and prothorax brownish black, the edges of the clypeus reddish ferruginous, finely punctured, the prothorax grooved along the base, the raised margin bordering the groove depressed in the middle, where it is joined by the nearly obsolete median line; scutellum pentagonal; elytra a little broader than the prothorax at the base, strongly striato-punctate, the margins well marked, especially at the shoulders; body beneath dark brown, shining, the breast rufescent; legs reddish ferruginous; antennæ extending to about the middle of the prothorax, reddish brown. Length $4\frac{1}{2}$ lines.

Scymena [Trachyscelinæ].

Characteres ut in *Phaleria*, sed *clypeus* profunde quadrato-excisus. *Antennæ* capite breviores. *Processus* interfemoralis apice acutus.

I have examined only the oral organs *in situ*; but they appear to be pretty nearly of the same character as those of *Phaleria*. The type described below resembles *P. Gayi*, Lap. Of my two examples one is reddish testaceous, the other black.

*Scymena variabilis.*

*S.* rufo-testacea vel nigra, nitida; elytris fortiter punctato-striatis, interstitiis striarum subtiliter punctulatis.

*Hab.* Australia.

Shortly ovate, reddish testaceous or black, shining; head finely punctured; clypeus separated from the front by a well-marked semi-

lunar line; antennæ shorter than the breadth of the head, imperfoliate; prothorax finely punctured, the apex rather strongly emarginate; scutellum broadly triangular; elytra punctate-striate, the striæ sharply defined, the intervals minutely punctured; body beneath and legs dull testaceous or black; tibiæ and tarsi roughly ciliated. Length $2\frac{1}{2}$–3 lines.

ECRIPSIS [Trachyscelinæ].

Characteres ut in *Ammobio*, sed *palpi maxillares* securiformes; *antennæ* longiores. *Tarsi* articulo ultimo elongato.

The securiform palpi are an exception to the rest of the Trachyscelinæ, except *Sphargeris*; the unusual length of the last tarsal joint will, however, distinguish this genus from all the others of the subfamily.

*Ecripsis pubescens.*

*E.* rufo-testacea, disperse griseo-pubescens.
*Hab.* Tasmania.

Shortly ovate, reddish testaceous, with a pubescence composed of short scattered hairs; head covered with small crowded granules; clypeus separated from the front by a well-marked semicircular line; antennæ as long as the breadth of the head; prothorax minutely and closely granulose; scutellum very broadly triangular; elytra nearly impunctate, the sides with the pubescence more setose and elongate; body beneath and legs reddish testaceous, sparingly pubescent; tibiæ granulose, the anterior with the outer apical portion triangular, with a comparatively slight emargination above. Length $1\frac{3}{4}$ line.

ISARIDA [Trachyscelinæ].

*Oculi* detecti. *Prothorax* basi lobatus. *Tibiæ* intermediæ et posticæ lineares, ciliatæ; *tarsis* propriis elongatis. *Prosternum* declive, haud lanciforme, mesosterno distinctum. Cæteris ut in *Ammobio*, sed *corpus* minus convexum.

From *Anemia* this genus, like *Ammobius*, will be distinguished, *inter alia*, by its retractile anterior tarsi: the principal characters separating it from the latter lie in the four posterior tibiæ and tarsi, and the prosternum.

*Isarida testacea.*

*I.* fulvo-testacea, glabra, subnitida; elytris subtiliter granulato-punctatis.
*Hab.* India (Dacca).

Fulvous-testaceous, glabrous, subnitid; head finely punctured; clypeus nearly confounded with the front, angularly emarginate; length of the antennæ scarcely half the width of the head; prothorax finely punctured, very transverse, lobed at the base; scutellum broadly triangular; elytra finely granulato-punctate, bordered, as well as the prothorax, with long bristly hairs at regular intervals; body beneath

and legs fulvous, rather regularly punctured; anterior tibiæ strongly trigonate, the emargination above the external apical angle very deep and rounded, the other tibiæ coarsely ciliated. Length $1\frac{3}{4}$ line.

### Hyocis [Trachyscelinæ].

*Caput* insertum, antice modice elongatum, clypeus haud distinctus. *Oculi* prominuli, rotundati. *Labrum* transversum, apice integrum. *Palpi maxillares* art. ult. cultriformi. *Antennæ* prothorace breviores, subperfoliatæ; art. primo longiore; tertio haud elongato; 2–8 breviter obconicis, majoribus, transversis; ultimo orbiculari. *Prothorax* elytris haud contiguus, transversus, apice late emarginatus, lateribus rotundatus, postice angustior, pone angulum posticum constrictus, basi truncatus. *Elytra* ovata, convexa. *Pedes* mediocres; *tibiæ* anticæ triangulares, omnes extus spinosulæ; *tarsi* lineares, postici art. basali modice elongato. *Prosternum* haud productum. *Mesosternum* declive. *Processus* interfemoralis latus, antice rotundatus.

The type of this genus is a little insect having somewhat the general appearance of a *Cryptophagus*, and which appears to me to come between *Ammobius* and *Phaleria*. I have not, however, ventured to examine the oral organs of my solitary specimen, for which I am indebted to Mr. Bakewell; but apparently they are not very different from those of *Phaleria*.

#### *Hyocis Bakewellii.*

*H.* fusco-ferruginea; elytris fortiter striato-punctatis.

*Hab.* Victoria.

Dark ferruginous; head and prothorax closely punctured, the punctures rather large and shallow, the raised intervals having a reticulate appearance; antennæ reddish testaceous, enlarging in thickness from the fifth to the tenth joint; prothorax with an impressed median line, its anterior angles rounded, its posterior acute; scutellum small, triangular; elytra scarcely broader than the prothorax, coarsely striate-punctate or almost clathrate; sterna covered with close shallow punctures; on the abdomen they are scattered and nearly obsolete, each with a small silvery hair; legs reddish testaceous. Length $1\frac{1}{3}$ line.

### Ozolais [Bolitophaginæ].

Characteres *capitis, oculorum* &c. ut in *Ilyxero*. *Palpi labiales* art. ult. ovato, obtuso. *Labium* latum, haud emarginatum. *Antennæ* 10-articulatæ, clavatæ; *scapo* elongato, modice incrassato; art. 2–8 subcylindricis, robustis; duobus ultimis clavam validam formantibus (9 semicircularі, 10 rotundato). *Prothorax* gibbosus, angulis anticis productis, marginibus crenatis. *Elytra* subcylindrica, prothorace paulo latiora. *Pedes* ut in *Ilyxero*. *Prosternum* productum, in cavitate Λ formante mesosterni receptum. *Corpus* oblongum, tuberculatum.

The antennæ of this genus are also clavate; but then they are ten-jointed, as in *Bolitotherus*. The specimen described below is one of Mr. Bates's discoveries on the Amazons.

*Ozolais scruposa*. (Pl. XVIII. fig. 1.)

*O.* fusca, pube grisea induta.

*Hab.* Ega.

Dark brown, with a loose greyish pile; head with two rows of tubercles in front; prothorax very convex or gibbous above, with nine or ten crenatures on each side, the penultimate by far the largest and directed backwards, the base rather strongly emarginate for the reception of part of the scutellum; elytra seriate-punctate, with several large tubercles mixed with others smaller and more spinous; body beneath dark brown, closely punctured; legs and antennæ reddish brown, with scattered grey hairs. Length 2 lines.

Ilyxerus [Bolitophaginæ].

*Caput* ante oculos dilatatum; clypeus distinctus. *Oculi* magni, semidivisi. *Palpi maxillares* robusti, apice oblique truncati. *Palpi labiales* art. ult. ovali, acuto. *Labium* parum emarginatum. *Mentum* transversum, antice sinuatum, postice constrictum. *Antennæ* 11-articulatæ, clavatæ; *scapo* elongato, crasso; art. 2 brevi; 3 obconico; 4–8 breviter trigonatis; tribus ultimis clavam validam compressam formantibus (9 valde transverso, 10 et 11 arcte applicatis, rotundatis). *Prothorax* postice constrictus, angulis anticis productis; marginibus crenatis, haud foliaceis. *Elytra* elongata, parallela, prothorace haud latiora. *Pedes* mediocres; *tibiæ* subcylindricæ, inermes; *tarsi* lineares, art. ult. cæteris simul sumptis vix breviore. *Prosternum* productum. *Mesosternum* subverticale. *Metasternum* modice elongatum. *Corpus* parallelum, angustatum, tuberculatum.

The narrow parallel form of this genus would at once distinguish it from any other in its subfamily; and no other has yet been published with clavate antennæ. I owe my specimen to Mr. Bakewell's liberality.

*Ilyxerus asper*. (Pl. XVIII. fig. 3.)

*I.* griseo-fuscus, supra tuberculatus et punctatus.

*Hab.* New South Wales.

Brown, with a sparse greyish-ochreous pubescence; head with a large tubercle over each eye, and three smaller ones between them; prothorax with about eight crenatures on each side, the disk roughly tuberculate. Scutellum semicircular; elytra with six rows of tubercles on each, between each row two lines of well-marked punctures; body beneath dark brown, the legs and antennæ reddish brown, all clothed with scattered greyish setulose hairs. Length $2\frac{1}{2}$ lines.

*Byrsax* Macleayi.*

*B.* oblongus, fuscus; capite maris cornibus elevatis, apicem versus incurvatis et decussatis; prothorace tuberculato, disco 4-tuberculato; elytris subdisperse punctatis, tuberculis magnis subseriatim positis.

*Hab.* Australia.

Oblong, dark brown, opake; head of the male armed with two long stout vertical horns, incurved and crossing each other at the tips, the tips themselves emarginate or reduced in thickness; head of the female with a simple tubercle between the eyes; prothorax finely punctured, very tuberculate, four principal tubercles on the disk towards the base arranged in pairs (::), in the female two others at the extreme apex, much produced, slightly recurved and transversely compressed; elytra somewhat coarsely punctured (the punctures rather depressed), tuberculate, four principal tubercles oblong and very large, on each side of the suture; between these and the margin on each side three slightly irregular rows of smaller and rounder tubercles; body beneath and legs reddish brown; mesosternum with a very compressed vertical process; club of the antennæ 7-jointed. Length 5 lines.

The genus *Byrsax* was proposed by me in the first number of this Journal (April, 1860), and differs from M. Motschoulsky's *Bolitoxenus* ('Études, &c.,' 1858, p. 63), in that the elytra have a produced margin, which is always coarsely serrate, and the prosternum is keeled anteriorly. *Byrsax* was there, in consequence of its tarsi appearing to me to be tetramerous, referred to the Colydiidæ; at the same time I pointed out its resemblance to *Diaperis horrida*, Ol. (a true *Byrsax*), but stated that, "guided by its tetramerous tarsi," its real affinity would be with *Endophlœus*, *Pristoderus*, and some other genera. I am now satisfied that it is truly heteromerous, the basal joint, indeed, being completely hidden in the cotyloid cavity of the tibia. I am not so satisfied, however, that the resemblance between it and the above Colydiide genera is *only* one of analogy. *Bolitophagus gibbifer*, Wesmael, is possibly identical with *Byrsax cœnosus*. There are, however, several other undescribed species.

*Byrsax egenus.*

*B.* oblongus, indumento terrulento fulvescente tectus; prothorace gibboso, disco 8-calloso, callis tuberculatis; elytris subseriatim callosis.

*Hab.* Australia.

Oblong, covered with a fulvescent tomenticious substance; head with four tubercles between the eyes, and two on the clypeus; prothorax very gibbous, the disk with four large callosities anteriorly, each apparently made up of three or four conical tubercles, and four smaller

* Pascoe, Journ. of Entom. i. p. 42.

ones behind, all arranged in pairs, the sides rugosely tuberculate; elytra with comparatively few tubercles, placed in three irregular rows, the principal tubercle at the shoulder; body beneath brown; legs and antennæ reddish chestnut; mesosternum produced anteriorly. Length 2 lines.

My specimen appears to be a female, but in colour, size, &c. it differs considerably from the above. I received these two species from Mr. MacLeay, but without any special locality. They are I think, most interesting additions to the fauna of that island continent.

*Ceropria* peregrina.*

*C.* nigra, nitida; prothorace subtilissime punctato, basi utrinque fortiter impresso; elytris striato-punctatis, punctis confertis; tarsis ferrugineis.

*Hab.* Queensland.

Black, shining; head finely punctured, clypeus extending to the eyes, truncate in front: antennæ with the joints from 4–10 equal, equilaterally triangular, 11 orbicular; prothorax minutely punctured, a large fovea on each side at the base; elytra punctate-striate, the punctures squarish and very close together, the spaces between the striæ finely punctured; body beneath pitchy; legs glossy black, the tarsi filiform, ferruginous. Length $4\frac{1}{2}$ lines.

Emypsara [Trachyscelinæ].

*Caput* subretractum; clypeus rotundatus; *labium* transversum. *Oculi* transversi, prothorace subobtecti. *Antennæ* mediocres, articulis apice ciliatis, *scapo* oblongo, art. 2 brevi, 3 obconico et longiore, 4, 5, 6 breviter obconicis, 7, 8, 9, 10 transversis, ultimo rotundato. *Palpi maxillares* robusti, art. ult. ovato, præcedente haud latiore. *Maxillæ* lobo interno angusto, hamato. *Palpi labiales* parvi, remoti, labii basi externe inserti. *Labium* transversum, antice late emarginatum, postice contractum. *Mentum* transverse quadratum. *Prothorax* transversus, antice angustior, basi truncatus, lateraliter marginatus. *Elytra* prothorace latiora, brevia, epipleuræ angustatæ. *Tibiæ* trigonatæ, calcaratæ. *Tarsi* antici et intermedii art. 2° et 3° dilatatis, postici filiformes. *Prosternum* postice productum, processu in fovea excisa mesosterni recepto. *Corpus* globoso-ovatum, marginibus ciliatum.

Nearly all the characters of this genus are, in the main, similar to those of *Phaleria*, except the ciliated margin of the body and the dilated anterior and intermediate tarsi—in the former approaching Trachyscelinæ and *Anemia*, belonging to the same subfamily, and in the latter the Pedininæ. The elytra are finely striated: nine striæ may be counted on each; they are therefore rather widely apart. I

* Laporte de Castelnau et Brullé, Ann. des Sc. Nat. xxiii. p. 306; Lacordaire, Gen. v. p. 307.

have not been able to ascertain if these insects are winged. In *Phaleria cadaverina* there are only the rudiments of wings. The two species were kindly presented to me by Arthur Adams, Esq.

*Empsara Adamsii.* (Pl. XIX. fig. 3.)

*E.* nigra; elytris, sutura nigra excepta, testaceis, fasciis flexuosis duabus rufis ornatis.

*Hab.* Mantchuria (Vladimir Bay).

Black, the upper surface minutely and closely granulated; antennæ shorter than the length of the prothorax, pale at the base; scutellum broadly triangular; elytra testaceous, except the black suture and two broad waved reddish bands; body beneath and legs dark chestnut-brown. Length 3 lines.

Fig. 2*a* represents the fore tarsus, and fig. 2*b* the antennæ.

*Empsara flexuosa.*

*E.* testacea; capite supra nigro; elytris lineis flexuosis nigro notatis.

*Hab.* Mantchuria (Oo-oo Bay).

Testaceous, the upper surface minutely and closely granulated; head black above; antennæ darker at the tips, longer than the length of the prothorax; scutellum triangular; elytra with two series of irregular patches, forming two imperfect bands, more brownish testaceous than the rest, and bordered more or less with dark-brown or black wavy lines; body beneath and legs yellowish testaceous, the spurs of the tibiæ and claws black. Length $2\frac{1}{2}$ lines.

*Pterohelæus* pruinosus.*

*P.* breviter ovatus, fuscus, pulvere albido tectus; elytris striato-punctatis, singulatim costis tribus vix elevatis instructis.

*Hab.* North Australia.

Allied to *P. piceus*, Kirby, but broader, and the sides more parallle, covered with a fine uniform whitish exudation, and, under the lens, a scattered greyish squamosity; elytra striate-punctate, with only three very slightly raised lines on each; body beneath reddish chestnut; antennæ and legs ferruginous. Length 9 lines.

*Pterohelæus agonus.*

*P.* ovatus, fuscus, subnitidus; prothorace apice late emarginato; elytris tenuiter lineato-punctatis, lineis subremotis.

*Hab.* South Australia.

Ovate, blackish brown, slightly nitid; head very finely punctured; antennæ and palpi ferruginous; prothorax nearly impunctate, very short, broadly emarginate at the apex, the posterior angles slightly

* De Brême, Essai Monog. et Iconog. de la Tribu des Cossyphides, p. 27; Lacordaire, Gen. v. p. 346.

produced; scutellum subtriangular; elytra lineate-punctate, the punctures small, the lines rather widely apart; body beneath and legs black, shining; tarsi ferruginous. Length 5–6 lines.

At once distinguished from *P. striato-punctatus*, Bois., and *P. Kollari*, de Brême, by the broad semicircular emargination of the apex of the prothorax. From the former, which it more nearly resembles, it may also be known by the nearly impunctate prothorax, and the elytra more decidedly lineate-punctate, not irregularly punctured on the disk. Dr. Boisduval's name is apt to mislead, as there are no striæ.

*Pterohelæus servus.*

*P.* oblongus, glaber, obscure fuscus; prothorace apice anguste sed profunde emarginato, in medio linea impressa; elytris prothorace paulo angustioribus, striato-punctatis, striis approximatis.

*Hab.* Victoria.

Narrower than *P. silphoides* *, De Br., with the prothorax a little wider than the elytra, its apex more deeply and squarely emarginate—not semicircular—and the narrowly impressed line in the middle more strongly marked; elytra striato-punctate, the striæ approximate; body beneath and legs glossy chestnut-brown; sides of the abdominal segments wrinkled. Length 7 lines.

*Pterohelæus memnonius.*

*P.* oblongus, glaber, niger, subnitidus; capite angusto; oculis magnis, subapproximatis; prothoracis marginibus subtiliter corrugatis; elytris lineato-punctatis.

*Hab.* South Australia (Adelaide).

Oblong, glabrous, black, slightly nitid; head finely punctured, narrowed; the eyes large and subapproximate, the distance between them in front being rather more than the length of their shortest diameter; prothorax finely punctured, its margins minutely waved; elytra closely lineate-punctate, the punctures well marked, the margins very narrow; body beneath and legs black, shining; tarsi and lip with ferruginous hairs. Length 11 lines.

A large species resembling *P. silphoides*; but the narrow head, large eyes, and fine waved lines on the margins of the prothorax will differentiate it from all its congeners.

*Pterohelæus bullatus.*

*P.* angusto-oblongus, rufo-brunneus vel fuscus; prothorace subtiliter punctato; elytris submulticostatis, costis granulatis.

*Hab.* South Australia (Queensland).

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* M. Lacordaire puts this species under *Saragus*; but it is winged, with the usual correlation of a long metasternum.

Narrowly oblong, reddish brown or dark brown, slightly shining; head finely punctured; prothorax with very minute punctures, the emargination at the apex very shallow; elytra rather finely lineate-punctate, the alternate lines slightly elevated (about nine on each elytron) and garnished with small glossy pustular or bubble-like granules placed at irregular intervals on those lines; body beneath dark chestnut-brown, or paler; legs also varying from reddish to brown, and shining. Length 8 lines.

Apparently allied to *Cilibe granulosus*, De Br., from New Zealand?, but essentially different in the very minute, almost obsolete punctation of the prothorax. It varies in colour, but the margins of the prothorax are paler than the disk.

*Helœus* consularis.*

*H.* obovatus, niger, nitidus, marginibus latis valde reflexis; prothorace in medio dentato-carinato, dente posteriore magno spiniformi; scutello carinato; elytris impunctatis, marginibus exceptis, utroque costa crenata et linea tuberculata externa instructo.

*Hab.* Western Australia.

Obovate, glabrous, black, shining; prothorax with a toothed carina in the middle, the posterior tooth large, in the form of a compressed triangular spine; scutellum transversely triangular, keeled in the middle; elytra impunctate, the broad strongly reflexed margins faintly punctured, their edges terminated by an erect, narrow border, the raised suture having on each side at a short distance a sharp costa crenated on both sides, and externally near the angle formed by the reflected margin a line of small tubercles which do not, however, extend to the base; body beneath glabrous, black, shining; legs rugose. Length 11 lines.

About the average shape and size of *H. colossus*, but with elytral costæ as in *H. Peronii*. The following is very nearly allied.

*Helœus moniliferus.*

*H.* ovatus, glaber, brunneus, nitidus, marginibus latis, explanatis; scutello semicirculari, haud carinato; elytris fere obsolete punctatis, cæteris ut in *præcedente*.

*Hab.* South Australia.

Broader and paler than the last, the margins scarcely reflexed; the scutellum rounded posteriorly, or semicircular, without a keel; elytra with the lateral costæ less crenated, and the exterior line of tubercles extending to the base, and the punctation, though minute, very evident under the lens. Length 11 lines.

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* Latreille, Règne An. ed. 1, iii. p. 301; Lacordaire, Gen. v. p. 347.

*Helœus castor.*

*H.* late ovatus, fusco-brunneus, vix nitidus, setuliferus, marginibus latis, explanatis; prothorace angulis posticis productis, incurvis; elytris sutura elevata, utroque costa valida usque ad partem tertiam percurrente.

*Hab.* South Australia.

Broadly ovate, brownish, scarcely shining, margins of the prothorax and elytra broad, and only slightly reflexed, the edges with an erect, narrow border; antennæ nearly linear; prothorax with short, scattered bristly hairs, the perforated portion with an elevated margin, disk with a sharp longitudinal line, posterior angles falcate, overlapping the elytra; scutellum broadly triangular; elytra irregularly punctured, and clothed with numerous scattered minute bristles, costa on each side the suture terminating at about a third from the apex; body beneath dark brown; legs rugose. Length 9 lines.

A broad, stout species, the sides of the elytra within the margins more vertical and elevated than in any other.

*Helœus falcatus.*

*H.* ovatus, niger; prothorace marginibus anticis in processum acute falcatum terminatis; elytris lividis, sparse setuliferis, in utroque costa crenata usque ad tertiam partem percurrente.

*Hab.* Kangaroo Island.

Differs from *H. Peronii*, Bois., in the following particulars:—antennæ narrower, much less dilated at the apex; prothorax obsoletely granulous, its anterior processes gradually narrower to the point, or, in other words, completely falcate, not of equal width until near the point, and not hollowed out above; elytra very glossy, as if varnished, their surface very slightly punctured and with scattered *curved* bristly hairs, and the lateral costa more decidedly crenate. Length 5–6 lines.

Sympetes [Helœinæ].

Characteres ut in *Helœo*, sed *caput* liberum, anguli antici prothoracis haud producti. *Labrum* obtectum.

The form of the prothorax will not allow the species described below being placed in *Helœus*; and the declivous mesosternum without any notch for the reception of the prosternal process, independently of other characters, separate it from *Saragus*. It is quite an *Helœus* in habit. I received my specimen from Mr. MacLeay; and it is the only one I have seen. A second species has been described by Mr. White, under the name of *Encephalus tricostellus* (App. to Gray's Voyage, p. 461).

*Sympetes Macleayi.*

*S.* late ovatus, valde depressus, latissime marginatus, fuscus; elytris confertim punctulatis, singulis subtrilineatis.

*Hab.* Australia.

Broadly and almost elliptically ovate, and very much depressed, dark brown, the margins paler, somewhat shining; clypeus broad, emarginate at the apex, and hiding the lip; prothorax finely punctured, the disk at the base scarcely more than a third of the width; scutellum broadly triangular; elytra with rather small punctures, sharply raised along the suture, each elytron with three indistinct lines, the margins nearly flat; body beneath and legs dull reddish brown, the margins of the prothorax and elytra finely punctured. Length 12 lines.

*Saragus* magister.*

*S.* elliptico-ovatus, impunctatus, niger, nitidus; prothorace elytrisque sat fortiter marginatis.

*Hab.* Queensland.

Elliptic-ovate, black and shining, very smooth and impunctate; clypeus transverse, gradually rounded from the antennary orbits; prothorax rather narrowly emarginate at the apex, the disk moderately convex, the margin about one-sixth of the breadth of the disk at its widest part; elytra convex, slightly raised into a line posteriorly at the suture, the margins narrower than those of the prothorax; body beneath glossy black, the abdomen finely corrugated; femora highly polished; tibiæ and tarsi with fulvous hairs, the latter and the antennæ ferruginous. Length 9 lines.

As regards sculpture and outline this species will come into the same category of the genus as *S. brunnipes*, De Br.; but it is much larger, and at once differs in the entire absence of punctation.

*Saragus asidoides.*

*S.* elliptico-ovatus, niger, opacus; prothorace lateribus dilatato, subtiliter et confertissime punctulato; elytris lineato-punctatis.

*Hab.* South Australia (Adelaide).

Elliptic-ovate, black, opake; clypeus slightly produced and truncate in front; head finely punctured; prothorax minutely and very closely punctured, rather narrowly emarginate at the apex, the disk flattish and passing gradually into the margin on each side, shining; elytra flattish at the base, more convex posteriorly, with small punctures in slightly irregular lines, the margin very distinct at the shoulders, but gradually narrowing to the apex, where it nearly disappears; body beneath and legs black, slightly nitid; the latter and antennæ with a thin ferruginous pubescence. Length 7 lines.

Something like *Asida depressa*, Sol., but more convex. The second

* Erichson, Wieg. Arch. 1842, i. p. 171; Lacordaire, Genera, v. p. 348.

and third joints of the anterior tarsi are somewhat dilated in my specimen.

*Saragus Duboulaii.*

*S.* subrotundus, niger, opacus, late marginatus; elytris confertim impresso-punctatis.

*Hab.* Western Australia (Champion Bay).

Nearly round, brownish black, opake, covered with a very short brownish pubescence; clypeus very broad, truncate or very slightly emarginate, with a deep groove in the middle behind at its junction with the head; prothorax nearly impunctate, narrowly and deeply emarginate at the apex, the disk scarcely convex, less than half the breadth at the base, and separated from the margins by a strongly marked curved impression; elytra with numerous small punctures, the disk slightly concave, the margin very distinct, gradually narrowing posteriorly; body beneath like the upper part; legs and antennæ pale reddish brown, with a short greyish pile. Length 5 lines.

One of the flattest and most nearly circular of the whole subfamily. I owe my example to Mr. Duboulay.

*Saragus exulans.*

*S.* oblongo-ovatus, fusco-brunneus, subnitidus; prothorace vix marginato; elytris confertim lineato-punctatis, marginibus angustatis.

*Hab.* Lord Howe's Island.

Oblong-ovate, convex, dark reddish brown, subnitid; clypeus sloping at the sides, the apex emarginate; head finely but rugosely punctured; prothorax closely and finely punctured, the punctures here and there confluent, the apex broadly emarginate, the lateral margins nearly confounded with the disk; elytra closely lineate-punctate, the margins very narrow, and almost disappearing posteriorly; body beneath and femora glossy chestnut-brown; tibiæ, tarsi, and antennæ pale ferruginous, finely pubescent. Length $5\frac{1}{2}$ lines.

Resembles *S. brunnipes*, but without any dilatation of the margin of the prothorax, &c.

*Saragus infelix.*

*S.* breviter ovatus, fuscus, opacus; prothorace confertim punctato; elytris tricostatis, interstitiis vage punctatis; tibiis scabris.

*Hab.* Tasmania.

Shortly ovate, blackish brown, opake; clypeus very transverse, narrower anteriorly and emarginate, separated from the head by a deep semicircular line; head finely but rugosely punctured; prothorax closely covered with small oblong punctures, the margins broad and subgranulous, the apex rather broadly emarginate; elytra tricostate, the costæ moderately elevated, dying out towards the apex, the intervals irregularly punctured, the margins narrow but very distinct;

body beneath and femora chestnut-brown; tibiæ scabrous, the outer edge of the anterior tuberculate; tarsi and antennæ pale ferruginous. Length 6 lines.

Allied to *S. lævicollis*, Fab., but less convex, the disk of the prothorax not granulate, the intercostal spaces simply punctured, and the tibiæ covered with small asperities.

*Saragus Odewahnii.*

*S.* breviter ovatus, fuscus, opacus; prothorace confertissime punctulato; elytris tricostatis, costis duabus externis interruptis, interna postice abrupte abbreviata, interstitiis subtiliter granulosis; tibiis subscabris.

*Hab.* South Australia (Gawler).

Shortly ovate, blackish brown, opake; clypeus slightly produced, broadly emarginate at the apex, separated from the head by an indistinct semicircular line; head rugosely punctured; prothorax very closely and minutely punctured, the intervals having a granulous appearance, the apex rather broadly emarginate, the margins broad and pale brownish; elytra considerably broader at the middle and posteriorly, tricostate, the inner costa sharply defined, but suddenly ceasing before the apex, the two outer costæ broken up into short lines or points, the intervals with a slight tomentose pubescence, out of which rise a number of minute granules; body beneath dark brown, shining; legs paler; tibiæ slightly scabrous. Length 5 lines.

Resembles the preceding, but smaller, the elytra more decidedly narrowed at the base; the sculpture of the prothorax and elytra are also very distinctive. It was one of the many novelties sent to me by Mr. Odewahn.

Ospidus [Helæinæ].

*Caput* ad oculos retractum; clypeo distincto, integro. *Oculi* transversi, supra distantes. *Palpi maxillares* securiformes, *labiales* breviter claviformes. *Maxillæ* lobo externo rotundato, interno angusto, inermi. *Labium* ampliatum, apice emarginatum. *Mentum* transverso-sexangulare. *Antennæ* 11-articulatæ, art. tertio longiore, reliquis gradatim brevioribus et crassioribus, quatuor ultimis clavam compressam formantibus, ultimo rotundato. *Prothorax* transversus, lateribus rotundatus et angusto-marginatus, apice profunde emarginatus, basi subbisinuatus. *Elytra* late ovata, convexa, leviter marginata; epipleuræ excavatæ. Alatæ. *Pedes* breviusculi; *tibiæ* anticæ apice extus productæ, inermes; tibiæ intermediæ et posticæ bicalcaratæ; *tarsi* subæquales, art. primo duobus sequentibus longiore. *Prosternum* carinatum, postice productum. *Mesosternum* Λ-forme pro processu prosterni. *Metasternum* modice elongatum. *Processus* interfemoralis triangularis. *Corpus* convexum, breviter ovatum.

This genus is allied to *Cilibe* as limited by M. Lacordaire. It has,

however, a somewhat elongate metasternum, a character which that learned entomologist may probably consider inconsistent with such affinity.

*Ospidus chrysomeloides.*

*O.* fusco-æneus; elytris cupreis, subtiliter punctatis; antennis fuscis.
*Hab.* Queensland.

Dark brownish bronze; head closely punctured; lip broad, scarcely emarginate; prothorax very minutely and closely punctured, the sides with small vermicular elevations; scutellum broadly triangular; elytra copper-brown, with numerous small punctures and several indistinct longitudinal raised lines; body beneath and legs reddish copper, shining; antennæ dark brown. Length 6 lines.

*Cossyphus* Odewahnii.*

*C.* ovatus, modice elongatus, testaceus, limbo subtilissime reticulato; prothorace haud carinato; elytris striato-punctatis, insertionis linea secundum elytra biseriatim punctata.
*Hab.* South Australia (Gawler).

Ovate, slightly elongate, testaceous, rim subdiaphanous, the reticulations exceedingly delicate, and scarcely visible under the lens, except in certain lights; prothorax without any carina, almost obsoletely punctured, darker than the rim; scutellum triangular; elytra striato-punctate, the punctures rather coarse and irregular, the junction of the rim with the disk marked with two rows of large punctures; body beneath, legs, &c. testaceous. Length 2 lines.

The punctures in two rows at the junction of the disk with the rim of the elytra, although large, are not very well defined; but they are distinctive, and differentiate this species from any of those described by the Marquis de Brême, none of which, however, are from Australia. Since his essay, M. Peyron and Dr. Gerstaecker have each published one, from Syria and Mozambique respectively. I have two more undescribed from India.

*Eutelus† ovatus.*

*E.* niger, indumento terrulento griseo tectus; prothorace medio bicalloso; elytris ovatis, tuberculis numerosis irregulariter dispersis.
*Hab.* Natal.

Black, covered with a thick greyish or reddish-grey secretion mixed with short hairs; clypeus short, transverse, front of the head with a few glossy black tubercles; prothorax transversely subglobose, in the

* Olivier, Entom. iii. No. 44 bis, p. 3.
† Solier, Mem. Accad. Torino, ser. 2, vi. p. 268; Lacordaire, Gen. v. p. 355.

middle two longitudinal crests crowned by numerous small tubercles, at the sides also two smaller round prominences placed directly midway between the apex and base; elytra ovate, rather broader than the prothorax, covered with several (about a dozen or more on each elytron) oblong callosities running parallel to but at a distance from the suture, and with a few minute granules between them; body beneath and legs black, shining, and rugose, with a short pubescence partially filling in the hollows; tarsi glabrous, glossy black. Length 6–7 lines.

This is probably the "second" species alluded to by M. Lacordaire (Gen. v. p. 356). It differs from Solier's *E. nodosus* in its ovate, not globose, elytra, each with a dozen or more oblong longitudinal elevations or tubercles, not with six only, "joined three and three, and forming two transverse callosities." M. Lacordaire's description of *Eutelus* applies perfectly to this species and to *E. nodosus*; but, from some oversight, he has represented as the latter the species I have described below under the name of *Cyrtotyche Satanas*.

CYRTOTYCHE [Eutelinæ].

Characteres ut in *Eutelo*; sed *caput* retractum. *Elytra* epipleuris antice obsoletis. *Tibiæ* elongatæ, tenuatæ, valde curvatæ, anticæ intus productæ. *Corpus* glabrum.

A remarkable form, closely allied to *Eutelus*, but which, owing to the absence of the peculiar vestiture of that genus, the longer legs, and slender, curved tibiæ, has quite another habit. It is figured on M. Lacordaire's plate under the name of *Eutelus nodosus*, Sol.

*Cyrtotyche Satanas.*

*C.* purpureo-fusca, nitida; antennis, palpis tarsisque nigris.
*Hab.* Natal.

Dark purplish brown, shining; head minutely punctured; prothorax rather broader than the elytra, very convex and arched above, and much contracted at the base, four glossy oblong tubercles in a transverse line in the centre, with two on each side behind, the uppermost very large and prominent, the lowermost bifid, the intervals rather dull, irregular and impunctate; scutellum very small, triangular; elytra impunctate, short and globose, scarcely as broad as the prothorax at the base, irregularly covered with large conical tubercles, the intervals pitted here and there, especially near the suture; body beneath black, shining; legs dark purple, shining; tarsi black. Length 7 lines.

BYZACNUS [Eutelinæ].

Characteres ut in *Eutelo*; sed *prothorax* subquadratus, supra æqualis, modice convexus, lateribus paulo rotundatus, apice late emarginatus, carina

laterali distinctus. *Elytra* elevata, a medio fortiter declivia, epipleuris linearibus. *Tibiæ* lineares, subcurvatæ. *Corpus* glabrum.

These characters give this genus a very different appearance from *Eutelus* and the preceding one. The form of the prothorax causes a marked distinction between the pronotum and its flanks, which is wanting in the above genera; the epipleuræ of the elytra are also of equal breadth throughout, and very apparent.

*Byzacnus picticollis.* (Pl. XIX. fig. 6.)

*B.* cupreo-fuscus, nitidus; prothorace lateribus rubris; antennis, tibiis tarsisque rufo-ferrugineis.

*Hab.* Natal.

Copper-brown, shining; head finely punctured; antennæ reddish ferruginous; lip and palpi paler; prothorax rugosely punctured, the sides dark red; scutellum small, transversely convex; elytra coarsely and sparingly punctured, narrower at the base than the prothorax, gradually broader and higher near the middle, where they are a little rounded and furnished with twelve tubercles, then almost vertically declivous, and the sides rapidly narrowing to the dehiscent apex, where they terminate each in an obtuse point; body beneath and femora dark brown, shining, finely punctured; tibiæ and tarsi reddish ferruginous. Length 5 lines.

Oremasis [Cyphaleinæ].

A *Prophane* differt *prothorace* angulis anticis haud productis; elytris gibbosis, basi prothorace haud latioribus et ad eum arcte applicatis, apicibus acuminatis.

The type of this genus is *Adelium cupreum*, G. R. Gray (Griffith's Animal King. Ins. ii. p. 22, pl. 80. f. 2). It is another of those species allied to *Prophanes*, which M. Lacordaire considers not to accord with that genus. It is in fact much nearer *Cyphaleus* in form than the depressed *Prophanes*. Another genus to be constituted is one for *P. metallescens*, Westw.; and probably my *Chartopteryx binodosus*, with its two great humps like *Thecacerus*, will require another. All the species of this handsome family, except *Lepispilus sulcicollis** and *Hemicyclus grandis*, are exceedingly rare. My collection contains eleven species, the British Museum seven, the greater part of each of each of them limited to a single individual. There are doubtless many more to come.

Lygestira [Cyphaleinæ].

*Prophani* affinis, sed differt *clypeo* emarginato; angulis anticis prothoracis haud productis; et apicibus elytrorum muticis.

* Found in Australia as well as in Tasmania.

This is one of the forms, mentioned by M. Lacordaire, referred to *Prophanes*, Westw., but having characters essentially different. They would probably, however, be considered slight, if they were not accompanied by a marked difference of habit, and the species did not belong to a family in which the instability of characters does not always admit of very trenchant differentiation. *Prophanes simplex*, Westw., belongs to this genus: my specimen scarcely answers in some particulars to Mr. Westwood's description; but it agrees in having a *deeply* emarginate clypeus, a character by which it differs from the species described below; the eyes are also much more widely apart, and the prothorax at the apex is considerably broader than the head, the anterior angles being consequently well marked though not produced. It is one of the many good things sent me by Mr. Odewahn.

*Lygestira funerea.*

*L.* olivaceo-nigra, nitida; oculis parvis, fronte remotis; clypeo modice emarginato; prothorace apice late emarginato.

*Hab.* South Australia (Gawler).

Oblong-ovate, depressed, olive-black, or very dark olive, shining, and having a very thin brownish tomentum; head and prothorax minutely punctured; the latter broadly emarginate at the apex, the anterior angle on each side extending considerably from the head; eyes small, widely apart; elytra finely punctured, longitudinally marked with numerous almost obsolete costæ, the apex rounded; body beneath black, and legs black, shining, tibiæ finely ciliated. Length 11 lines.

Cholipus [Cnodalinæ].

*Caput* exsertum, antice transversum; *clypeus* distinctus, fere ad basin antennarum truncatus. *Labrum* transversum. *Mandibulæ* apice integræ. *Palpi maxillares* securiformes; *labiales* art. ult. magno, cyathiformi. *Mentum* trapeziforme, in linea mediana incrassatum. *Antennæ* art. 3^io^ quam 1^mus^ longiore, 6–10 sensim latioribus transversis et compressis, ultimo præcedente majore et rotundato. *Prothorax* subtransversus, apice fere truncatus, ad latera rotundatus, tenuiter marginatus, postice constrictus, basi leviter bisinuatus. *Elytra* prothorace latiora, oblonga, pone medium latiora. *Tibiæ* subcurvatæ, muticæ; *tarsi* art. ultimo majore. *Prosternum* dilatatum, declive. *Mesosternum* antice excavatum.

The type of this genus has long been known under Dejean's name here adopted. With it I have associated a species from Queensland which appears to me to be congeneric. The genus is distinguished *inter alia* from its allies by its declivous prosternum without the usual mucro.

*Cholipus brevicornis.*

*C.* niger, nitidus; elytris purpurascentibus, leviter striato-punctatis, punctis subtilissimis interstitiis sitis.

*Hab.* Java.

Glossy black; head and prothorax finely punctured, the latter with a median impressed line; scutellum triangular; elytra dark purplish, finely striato-punctate, the interstices with extremely minute punctures; body beneath and legs glossy black; antennæ with the last six joints but one dilated on one side. Length 6 lines.

*Cholipus punctipennis.*

*C.* niger, subnitidus; elytris seriatim punctato-impressis, punctis mediocribus, interstitiis impunctatis.

*Hab.* Queensland.

Black, slightly shining; head and prothorax minutely punctured; the latter with the median impressed line confined to the posterior part, and ending in a shallow fovea near the base; scutellum triangular; elytra seriate-punctate, the punctures impressed, moderately large, the intervals impunctate; body beneath, legs, and antennæ glossy black. Length 6 lines.

*Hemicyclus* punctulatus.*

*H.* breviter elliptico-ovatus, purpureo- vel chalybeato metallicus; elytris subtiliter punctatis.

*Hab.* South Australia.

Shortly ovate-elliptical, steel-blue, varying to purple; head sparsely punctured, a broad longitudinal impression between the eyes; antennæ chalybeate blue, the basal joint copper; prothorax nearly impunctate, except at the rim; scutellum triangular; elytra finely punctured, the punctures numerous but not crowded; body beneath and legs dark greenish black, shining. Length 6½ lines.

Very decisively distinguished from *H. grandis* and *metallicus* of Westwood by its oblong although still somewhat hemispherical form and punctured elytra.

*Platyphanes† cyaneus.*

*H.* ovatus, cyaneus, nitidus; capite prothoraceque nigris; antennis pedibusque subferrugineis.

*Hab.* North Australia.

Ovate, very convex, deep indigo-blue, shining; head and prothorax black, minutely punctured; clypeus not distinct from the head, slightly emarginate; antennæ scarcely longer than the breadth of the head, ferruginous, the 7th–10th joints transverse, the last as long as broad; prothorax much narrower than the elytra, broadly lobed at the base; elytra gradually broader to about the middle, then rounding to the apex,

* Westwood, Arc. Ent. i. p. 44. † Westwood, Trans. Ent. Soc. v. p. 206.

lineate-punctate, the punctures very small and in about 14 lines, but the fifth and eighth forming double lines of smaller punctures, all disappearing near the apex; body beneath shining; femora nearly black; tibiæ and tarsi subferruginous. Length 8 lines.

Probably a proper genus. I have referred it here on account of its antennæ, rather than to *Cyphaleus*, but the epipleuræ of the elytra are not horizontal as in *Platyphanes*. Is not *Platyphanes vittatus*, Westw., an *Hemicera*?

Eucyrtus [Cnodalinæ].

*Caput* exsertum, ante oculos brevissimum; clypeus distinctus, transversus, ad basin antennarum truncatus, apice emarginatus. *Labrum* transversum. *Mandibulæ* apice integræ. *Palpi maxillares* securiformes; *labiales* art. ultimo elongato-ovato. *Mentum* haud carinatum, transversum, antice truncatum. *Palpi labiales* art. ult. oblongo-ovato. *Antennæ* art. 3io quam 1mus longiore, 5o vel 6–10 sensim latioribus et brevioribus, compressis, ultimo majore, rotundato. *Prothorax* transversus, apice subsinuatus, ad latera rotundatus, fortiter marginatus, postice constrictus, basi bisinuatus. *Elytra* late ovata, prothorace latiora. *Pedes* validi; *femora* intermedia et posteriora aliquando infra hirsuta; *tibiæ* rectæ, muticæ, intus ad apicem villosæ; *tarsi* subdilatati, articulo ultimo cæteris simul sumptis breviore. *Prosternum* latum, postice depressum, mucrone brevi verticali terminatum. *Mesosternum* antice excavatum. *Processus* interfemoralis triangularis.

These characters apply to *Eucyrtus pretiosus* of Dejean's catalogue, briefly described by M. Lacordaire in his 'Genera' (v. p. 417, *note*), but they do not apply to Hope's *Scotæus*, into which that learned entomologist has merged the genus of Dejean. *Scotæus* has a retracted head, the clypeus produced beyond the antennary lobes, the antennæ subserrate, prothorax finely margined at the sides, the four posterior femora not hairy beneath, the tibiæ glabrous; the tarsi are much longer and more attenuated, with the claw-joint very long; above all, the prosternum is horizontally prolonged posteriorly, and is received into a long narrow groove of the mesosternum. Borneo seems to be rich in the species of *Eucyrtus*.

Gauromaia [Cnodalinæ].

Characteres ut in *Eucyrto*, sed *clypeus* productus, orbitis antennarum distinctus, emarginatus. *Maxillæ* lobo interiore dentato. *Mentum* fere semicirculare, basi in processum triangularem productum. *Palpi labiales* art. ult. breviter obconico. *Femora* sublinearia. *Tibiæ* antice tenuatæ, curvatæ.

I am unwilling to introduce characters derived almost entirely

from the oral organs as distinctive of nearly allied genera, principally because they are difficult to ascertain, and are probably assumed in the majority of cases, except in the type of the genus: but in this instance the toothed inner maxillary lobe is an exception to the characters of this subfamily as laid down by M. Lacordaire. The mentum is also very peculiar, it is very much produced in front in a nearly semicircular form, with short sides each of which gives off a sort of triangular process at right angles to the main axis, in this way forming a kind of enclosure round the base of the lower lip. The clypeus *let into* the front and distinct from the antennary orbits, is also very different from the same organ in *Eucyrtus*, where it runs into and seems a part of the orbits.

*Gauromaia dives.*

*G.* purpureo-metallica, nitida; corpore infra, antennis pedibusque nigris.
*Hab.* Malacca (Mount Ophir).

Metallic purple, smooth and shining; head and prothorax finely punctured, the latter transverse, rounded and finely margined at the sides and base, the latter and apex of nearly equal breadth; scutellum triangular; elytra ovate, broader than the prothorax, striato-punctate, punctures small and approximate, spaces between the striæ broad and minutely punctulate; body beneath and legs black; femora not thickened, the anterior slightly curved, a faint shade of coral-red in the middle; tibiæ nearly equal in length, more or less curved; tarsi subequal; antennæ black, with the last four joints pubescent. Length 7 lines.

Phaedis [Cnodalinæ].

Characteres ut in *Eucyrto*; sed *clypeus* productus; *mentum* minus transversum, in medio carinatum. *Antennæ* breviores, articulis magis transversis. *Prothorax* apice paulo productus. *Femora* incrassata, in medio subtus dentata.

The last character also distinguishes this genus from the foregoing, from which, moreover, it differs in the larger comparative size of the claw-joint, and the shortness of the anterior tibiæ.

*Phaedis elysius.*

*P.* cæruleus, nitidus; elytris aureo-æneis, lineato-punctatis.
*Hab.* Sarawak.

Sky-blue, very smooth and glossy; head rather remotely punctured, the lateral line, separating the clypeus from the front, extending above the base of the former; antennæ reddish ferruginous, pubescent, scarcely longer than the breadth of the head; palpi pale ferruginous; prothorax with numerous small, rather remote punctures, finely bordered on all

sides; scutellum small, triangular; elytra much broader than the prothorax, bright brassy yellow, or brassy with a golden tinge, lineate-punctate, the intervals between the lines with very minute scattered points, the intervals between the punctures brassy brown; body beneath and legs glossy, with a greenish tinge. Length 5 lines.

ELIXOTA [Cnodalinæ].

*Caput* breve, usque ad medium oculorum insertum; *clypeus* angustatus, apice truncatus. *Labrum* productum. *Oculi* magni. *Mentum* trapezoidale, medio carinatum, apice emarginatum. *Labium* subcordatum. *Palpi labiales* approximati, in medio labii inserti, art. ult. amplo. *Antennæ* apicem versus paulo incrassatæ, articulis obconicis, ultimo ovato. *Prothorax* transversus, lateribus rotundatus, apice emarginatus, basi sublobatus. *Elytra* prothoraci arcte applicata, oblonga, convexa; *epipleuræ* integræ. *Pedes* mediocres; *tibiæ* graciles; *tarsi* lineares, articulo ultimo mediocri. *Prosternum* postice productum, in incisura mesosterni receptum. *Processus* interfemoralis triangularis. *Corpus* oblongo-ovatum.

Allied to *Damatris*, Lap., but differentiated by its small claw-joints, and the epipleuræ of the elytra entire and gradually narrowing to the apex. The last joint of the maxillary palpus is nearly three times the size of the outer maxillary lobe. The type resembles an oblong *Chrysomela* (*C. geminata* for instance), only much larger.

*Elixota cuprea.*

*E.* cuprea, nitida; elytris lineato-punctatis, interstitiis punctulatis.
*Hab.* North China.

Dark copper-brown, shining; head and prothorax finely punctured, the junction of the clypeus with the front marked only by a deep transverse line, which does not extend to the antennary orbits, the six terminal joints of the antennæ broader than the others; scutellum triangular, its sides slightly rounded; elytra oblong, rather broader than the prothorax, lineate-punctate, the punctures rather small, oblong, and occasionally approximate, the intervals between the lines remotely and minutely punctate; body beneath dark copper-brown, shining; posterior tarsi with the basal joint nearly as long as the rest together, the claw-joint not longer than the second and third together. Length $4\frac{1}{2}$ lines.

NAUTES [Cnodalinæ].

*Caput* retractum; *clypeus* fronte confusus. *Labrum* transversum. *Mandibulæ* apice integræ. *Palpi maxillares* securiformes; *labiales* art. ult. magno, cyathiformi. *Mentum* quadratum. *Labium* magnum, basi angustiore. *Antennæ* graciles, art. tertio longiore, 4–7 æqualibus tenuatis, 8–10 elongato-obconicis, ultimo oblongo oblique truncato. *Prothorax* transversus, apice leviter emarginatus, basi sublobatus. *Elytra* oblonga, prothorace paulo latiora; *epipleuræ* postice abrupte angustiores.

*Pedes* mediocres; *tibiæ* lineares; *tarsi* antici art. tribus basalibus dilatatis (♂?) tertio subbilobo, penultimo parvo: intermedii et postici art. basali paulo elongato, penultimo minore, ultimo mediocri. *Prosternum* postice in cavitate mesosterni receptum. *Corpus* oblongo-ovatum, convexum.

I have adopted this genus, which does not appear to have been published, from one of M. Deyrolle's lists. It differs from the former, *inter alia*, in the third joint of the anterior tarsus being subbilobed, with the small penultimate joint inserted between the lobes.

*Nautes fervidus.*

*N.* cupreus, nitidus; elytris lineato-sulcatis, sulcis fere obsolete punctatis.
*Hab.* Mexico.

Bright reddish copper, shining; head finely but not closely punctured; lip testaceous, hairy; prothorax minutely and rather remotely punctured, the margin on each side thickened; scutellum triangular; elytra with nine narrow but deeply sulcated lines on each, the outermost not extending to the base, the lines marked at regular intervals as if punctured; body beneath and legs dark greenish copper; tarsi and antennæ ferruginous. Length 4 lines.

Arcothymus [Helopinæ].

*Caput* retractum; *clypeus* distinctus, antice rotundatus. *Oculi* transversi, distantes. *Palpi maxillares* securiformes; *labiales* cylindrici. *Mentum* transversum, antice bisinuatum, postice valde constrictum. *Labium* apice emarginatum. *Antennæ* filiformes; articulo tertio elongato, cæteris longitudine æqualibus, subobconicis, ultimo oblongo-ovato *Prothorax* transversus, antice rotundatus, pone medium incurvatus angulis posticis acutis, apice late emarginatus, basi truncatus. *Elytra* prothorace basi latiora, dorso subplanata, lateribus subito declivia et rotundata, epipleuræ angustatæ. *Pedes* inæquales, graciles; *tibiæ* calcaratæ; *tarsi* postici articulo basali cæteris simul sumptis fere longiore. *Prosternum* productum. *Mesosternum* longiusculum, latum, subverticale. *Processus* interfemoralis latus.

The type of this genus is rather above the ordinary size, and in outline resembles the shorter species of *Blaps*. Like so many other genera in this family, it does not appear, to have any very obvious affinities.

*Arcothymus cœnosus.*

*A.* niger, pube scabra fuscescente tectus, infra glaber, nitidus; elytris obsolete striatis.
*Hab.* Australia.

Black, covered with a rough brownish pubescence composed of short

stiff hairs, mixed with a slight powdery exudation; head much narrower than the prothorax, retracted to the eyes; antennæ extending to nearly half the length of the body; prothorax very slightly convex, the inflected sides nearly three times the breadth of the epipleuræ, which are very distinct; body beneath black, shining; legs with a thin brownish pubescence. Length 8 lines.

### Mimopeus [Helopinæ].

*Caput* retractum; *clypeus* fronte confusus, apice emarginatus. *Oculi* transversi, distantes. *Palpi maxillares* securiformes; *labiales* triangulares. *Mentum* antice latum, basin versus angustatum. *Antennæ* breviusculæ, art. tertio longiore, 4–7 brevioribus obconicis, 8–10 latioribus et compressis plus minusve obconicis, 11 rotundato. *Prothorax* transversus, ad latera rotundatus, antice angustior, basi bisinuatus, apice fortiter emarginatus. *Elytra* ovata, prothorace latiora, humeri angulis prothoracis obtecti. *Pedes* mediocres; *tibiæ* apicem versus crassiores, calcaratæ; *tarsi* antici breves, postici elongati tenues. *Prosternum* productum. *Mesosternum* breve, triangulare. *Processus* interfemoralis quadratus, antice rotundatus.

In the character of its antennæ this genus is nearer to *Misolampus* and its allies than to *Helops*, with which it agrees in habit. In this respect, however, it still more nearly resembles some species of *Amara*.

#### *Mimopeus amaroides.*

*M.* glaber; capite prothoraceque nigris, nitidis; elytris purpureo-brunneis, punctato-impressis, subtilissime granulosis; antennis pedibusque ferrugineis.

*Hab.* Australia.

Smooth; head and prothorax black, shining, finely punctured, lateral margins of the latter slightly produced, bordered with a slightly raised edge; scutellum transversely triangular; elytra dark purplish brown, opake, with numerous irregular punctiform impressions, the intervals dotted with very minute granules, epipleuræ ferruginous, broad at the base, gradually narrowing towards the apex; body beneath dark purplish brown, shining; legs, antennæ, and palpi ferruginous. Length 6 lines.

### Gnesis [Helopinæ].

*Caput* subverticale, antice dilatatum et integrum; *labrum* emarginatum, basi angustius. *Oculi* transversi, sinuati. *Palpi maxillares* art. ult. securiformi. *Maxillæ* lobo interno hamato. *Palpi labiales* art. ult. ovato. *Labium* integrum, basi angustius. *Mentum* trapeziforme. *Antennæ* claviformes, articulis terminalibus transversis compressis, basalibus obconicis. *Prothorax* subcylindricus, tenuiter marginatus, antice truncatus, basi in medio paulo lobatus. *Elytra* ovata, prothoraci arcte applicata. *Pedes* breves; *femora* antica subtus unidentata; *tibiæ* curvatæ, breviter

calcaratæ; *tarsi* lineares, art. ult. cæteris fere æquali. *Prosternum* postice productum, in incisura mesosterni receptum. *Metasternum* breve. *Corpus* læve, ovatum, convexum.

The form of the antennæ requires this genus to be placed in M. Lacordaire's third "group" of Helopinæ, with *Misolampus*, *Zophius*, and others, to none of which does it bear any decided affinity. In habit it approaches some of the more convex forms of *Helops*. The internal maxillary lobe has a very distinct hook, a character which occurs only in this subfamily in *Amphidora* and *Enoplopus*; in the latter the profemora are also toothed. I owe my specimens to Mr. Adams, but I am unable to say from part of the coast they were derived.

*Gnesis helopioides.*

*G.* nigra, nitida; elytris fuscis, striato-punctatis.

*Hab.* Mantchuria.

Black, shining; antennæ, lip, and palpi ferruginous, the former shorter than the prothorax; head and prothorax finely punctured; scutellum small, acutely triangular; elytra dark brown, inclining to chestnut, deeply punctate-striate, the sutural and exterior striæ alone reaching the apex, the others uniting at various distances from it; body beneath and legs dark chestnut, shining. Length $3\frac{1}{2}$–4 lines.

*Atryphodes* Macleayi.*

*A.* niger, opacus; prothorace utrinque valde foliaceo, reflexo; elytris planatis, lineato-striatis, lateribus reflexo-marginatis, humeris distinctis.

*Hab.* New South Wales?

Opake, black; head with a stirrup-shaped impression in front; prothorax very deeply emarginate at the apex, each side with a broad reflexed foliaceous margin; elytra nearly perfectly flat above, the margins on each side slightly reflexed, the shoulders produced but rounded, the disk punctate-striate, the striæ more or less united anteriorly and posteriorly, and here and there single striæ within the double striæ, epipleuræ very broad and smooth; abdomen and legs glossy black. Length 9 lines.

*Atryphodes egerius.* (Pl. XIX. fig. 4.)

*A.* niger, opacus; prothorace antice foliaceo, postice constricto, angulis posticis acute productis; elytris obovatis, striatis, interstitiis alternis elevatis, humeris nullis.

*Hab.* New South Wales?

Opake, black; head with an obscure horseshoe-shaped impression in front; prothorax moderately emarginate at the apex, the sides in front rounded and slightly foliaceous, but considerably narrowed be-

* = *Thoracophorus*, Hope, not Motschulsky.

hind, each basal angle ending in a slender process directed backwards; elytra obovate, the margins very narrow, lateral, the disk striated, the striæ obsoletely punctured, the alternate intervals elevated into a sharp line or ridge; body beneath smooth, black; legs glossy black. Length 8 lines.

This and the above I received some time ago from W. Macleay, Esq., without a precise locality. They are exceedingly well-marked species, the first on account of its flat upper surface with reflected margins to the prothorax and elytra, the second from the absence of humeral angles and the remarkable slenderness of the body above the junction of the elytra and prothorax. In the last species the lateral groove on the prothorax, which on *A. Walckenaeri* is situated at the base, is placed midway between the apex and base; in *A. Macleayi* it extends to the middle, but is rather obscurely defined posteriorly. It would perhaps be more correct to regard the epipleuræ in *A. Macleayi* as limited to a portion of the under surface of the expanded margin of the elytra exterior to a slightly raised line which may be partially traced, instead of comprehending the whole: it would be more consistent with analogy, although in this case the epipleuræ would be all but confounded with the elytra.

*Atryphodes errans.*

*A.* niger, nitidus; prothorace modice convexo, glabro, marginibus angustis; elytris prothorace angustioribus, striatis.

*Hab.* Queensland.

Black, shining; head with a few foveæ in front (as well as the sulcations common to the genus); prothorax moderately convex, rounded at the sides, the margins narrow, latero-basal groove very short; elytra narrower than the prothorax, slightly convex, the shoulders obsolete, the disk regularly striated; body beneath and legs glossy black; the tarsi covered with golden-brown hairs. Length 7 lines.

Similar to *A. Walckenaeri*, but glossy, not opake, and a narrow margin to the prothorax, which is also rather broader than the elytra.

*Atryphodes aratus.*

*A.* niger, indumento fuscescente tectus; prothorace utrinque foliaceo; elytris subplanatis, inæqualiter striatis, lateribus reflexo-marginatis, humeris distinctis.

*Hab.* Queensland.

Closely allied to *A. Macleayi*, but covered with a brownish filmy crust, the elytra less flattened, and the striæ irregular, the intervening lines being somewhat flexuous, the fifth from the suture more elevated than the rest, and the two or three outer broken up into numerous ob-

long or roundish tubercles. The other characters are nearly the same in both species. Length 9 lines.

*Adelium* augurale.*

*A.* viridi-æneum; prothorace utrinque rotundato, modice emarginato, vermiculato-punctato; elytris interrupte costatis, punctis numerosis impressis.

*Hab.* Queensland.

Dark greenish bronze, in other respects resembling *A. porcatum*, but the punctures on the head and prothorax deeper and more crowded, on the latter especially running together and leaving vermicular spaces in the intervals; on the elytra the alternate ridges are considerably less elevated, or, rather, are hardly to be recognized as ridges, being more or less tubercular, the punctures more numerous and less confined to the striæ, the general surface also most minutely granulate, but without the small glabrous points visible in *A. porcatum*; body beneath and legs chalybeate blue or green. Length 6 lines.

I have seen only one specimen of this species.

*Adelium succisum.*

*A.* viridi-æneum; prothorace marginibus subfoliaceis, pone medium subito descrescente; elytris ovatis, irregulariter impresso-punctatis, punctis approximatis, aliquando connexis, punctis minoribus dispersis; antennis filiformibus.

*Hab.* Victoria.

Dark greenish bronze; head roughly punctured; prothorax transverse, the sides slightly foliaceous, gradually broader for about two-thirds of its length, then suddenly narrowing to the base, the disk with obscure punctiform impressions principally at the sides; elytra ovate, the shoulders nearly obsolete, covered with numerous punctiform impressions, some of which unite, and having smaller punctures in the intervals; body beneath black, very glossy, the segments on each side with a V-shaped impression; legs black, shining. Length 6–8 lines.

Narrower than *A. porcatum*, which, however, is by no means its nearest ally, and well distinguished by the peculiar angularity of the sides of the prothorax, which look as if broken off posteriorly.

*Adelium vicarium.*

*A.* fusco-æneum; prothorace marginibus rotundatis, modice dilatatis; elytris anguste ovatis, seriatim impresso-punctatis; antennis apicem versus crassioribus.

*Hab.* Western Australia.

Dark bronze; head punctured anteriorly, the vertex impunctate;

* Kirby, Trans. Linn. Soc. xii. p. 420; Lacordaire, Gen. v. p. 437.

prothorax transverse, the margins rounded and moderately dilated at the sides, finely punctured, with about three foveæ on each side and a stronger impression near the margin; elytra narrowly ovate, seriate-punctate, the punctures very irregular in size and approximation, but much smaller than in the preceding species, and the spaces between them less rugose; body beneath and legs glossy black; tarsi with brownish hairs; antennæ with the last four joints but one dilated and triangular, the last rounded. Length 5 lines.

This is the only species I have noticed with what may called subclaviform antennæ; in other respects it is clearly allied to the preceding.

*Adelium obesum.*

*A.* viridi-æneum; prothorace indistincte punctato, utrinque rotundato, pone medium constricto; elytris ampliatis, prothorace multo latioribus, fortiter punctato-striatis, humeris rotundatis.

*Hab.* Victoria.

Dark greenish bronze; head distinctly punctured; prothorax small, transverse, rounded at the sides, the greatest breadth being behind the middle, the breadth then rapidly contracting, the disk with numerous irregular indistinct punctiform impressions; elytra much broader than the prothorax, convex, strongly punctate-striate, the shoulders rounded; body beneath dark chalybeate green; legs glossy black; third antennal joint nearly as long as the next three together. Length 7 lines.

*Adelium auratum.*

*A.* viridi-aureum; prothorace lævi, subtilissime punctato, utrinque rotundato; elytris ovatis, interrupte fortiter striatis; corpore infra nigro, nitido.

*Hab.* North Australia.

Rich golden-green, with coppery reflections; head with scattered minute punctures; clypeus slightly emarginate at the apex; lip and antennæ black; prothorax smooth, finely punctured, a few irregularly distributed foveæ on the disk, the sides expanded and well rounded, with the margin reflexed and thickened above; scutellum triangular; elytra broadly ovate, convex, coarsely striate, but the striæ broken up into short portions, the intervals nearly impunctate; body beneath and legs black, shining. Length 9 lines.

A distinct and handsome species, resembling our *Carabus arvensis.*

*Adelium striatum.*

*A.* æneo-fuscum, nitidum; elytris impunctatis, fortiter striatis.

*Hab.* Queensland.

Dark brassy brown, shining; head nearly impunctate, the clypeus very short and transverse, scarcely extending beyond the insertion of the antennæ. and having a narrow process on each side directed towards

the inner portion of the eye; prothorax impunctate, the sides expanded and well rounded, with the edges of the margins reflexed but only slightly thickened, the centre of the disk with two foveæ, and behind these towards the posterior angle an irregularly curved impressed line on each side; elytra shortly ovate, convex, strongly striate, nine striæ on each; body beneath, legs, and antennæ dark glossy brown. Length 9 lines.

Readily distinguished by its impunctate elytra, with their strongly marked simple striæ. The clypeus is also peculiar.

*Adelium latum.*

*A.* late ovatum, cupreo-fuscum, nitidum; prothorace latitudine elytrorum, marginibus haud dilatatis; elytris foveolatis et irregulariter lineato-punctatis.

*Hab.* Australia.

Rather broadly ovate, slightly convex, dark copper-brown, shining; head slightly punctured; the clypeus very short and transverse, scarcely extending beyond the insertion of the antennæ; prothorax as broad as the elytra, its apex scarcely narrower than the base, thinly punctured, and pitted with several large foveæ, posterior angles not acute, the lateral margins not dilated, consisting merely of a thickened line; elytra shortly ovate, having a few irregular lines of small punctures, here and there displaced by a broad fovea; body beneath and legs dark glossy brown. Length 5 lines.

Remarkable for the breadth of the prothorax, and its moderately convex form. It should stand after *A. licinoides*, Kirby.

*Adelium congestum.*

*A.* elongatum, æneo-fuscum; prothorace nitido, disperse et irregulariter punctato, marginibus haud dilatatis; elytris seriatim punctatis, interstitiis alternis interrupte lineato-elevatis, lineis nitidis.

*Hab.* Victoria.

Elongate, dark brassy brown; head rugosely punctured; the clypeus very short and considerably thickened in front; prothorax shining, irregularly and rather coarsely punctured, not dilated at the sides, the base strongly incurved; elytra oblong, a little broader than the prothorax, scarcely or only very slightly shining, seriate-punctate, the intervals between the alternate series with interrupted elevated shining lines, or, in other words, there are five pairs of punctured lines and four lines of short oblong ridges on each elytron; body beneath and legs dark glossy black. Length $4\frac{1}{2}$–6 lines.

The sculpture of the elytra is sufficiently characteristic of this very distinct species.

The three following genera comprise the species which are excluded from *Adelium* as defined by M. Lacordaire, and which he has indicated as types of new ones, without, however, giving their characters.

Otrintus.

Characteres ut in *Adelio*; sed *prothorax* basi sinuatus. *Elytra* convexa, angustata, epipleuris verticalibus. *Tibiæ* anticæ curvatæ. *Mesosternum* elevatum, cavitate Λ-formi pro receptione processus prosterni.
Type, *Otrintus Behrii*, Germar (*Prosodes*?).

Coripera.

Characteres ut in *Adelio*; sed *elytra* prothoraci arcte applicata; *epipleuris* angustatis, humeris distantibus.
Type, *Coripera deplanata*, Boisduval (*Adelium*).

Pheloneis.

Characteres ut in *Adelio*; sed *antennæ* articulis apicalibus, ultimo excepto, transversis. *Elytra* prothoraci arcte applicata. *Tarsi* antici et intermedii articulis, ultimo excepto, plus minusve latioribus, et triangulariter transversis.
Type, *Pheloneis harpaloides*, White (*Adelium*).

To any of these it is impossible to refer *Adelium catenulatum*, Boisd. It has the elytra closely applied to the prothorax as in *Coripera* and *Pheloneis*; but the epipleuræ mounting to the shoulder as in *Adelium* cuts it off from the former, while the latter has the terminal joints of the antennæ dilated, and an entirely different habit, singularly resembling, as M. Lacordaire observes, certain Amaras. It may be named

Seirotrana.

Characteres ut in *Adelio*, sed *elytra* prothoraci arcte applicata. *Antennæ* articulo tertio duobus sequentibus breviore.
Type, *Seirotrana catenulata*, Boisduval (*Adelium*).

Cymbeba [Helopinæ].

*Caput* breve, retractum; *clypeus* distinctus, ultra basin antennarum haud productus, apice rotundatus. *Labrum* angustatum, productum. *Mentum* transverse cordatum. *Palpi* ut in *Adelio*. *Antennæ* lineares, art. tertio longiore, ultimo ovato. *Prothorax* transversus, lateribus vix rotundatus, leviter marginatus, apice late sinuatus, basi in medio retractus, angulis posticis rotundatis. *Scutellum* transversum. *Elytra* basi prothorace vix latiora, apicem versus sensim angustiora, lateribus subito declivia. *Pedes* ut in *Adelio*. *Prosternum* postice productum in cavitate meso-

sterni receptum. *Metasternum* breve. *Processus* interfemoralis antice rotundatum. *Corpus* naviculare, supra depressum.

The outline of this insect, resembling a broad species of *Elater*, and its flattened form, will readily distinguish it from all other genera of the subfamily to which it belongs.

*Cymbeba dissimilis.* (Pl. XIX. fig. 8.)

*C.* ænea, nitida; prothorace basi bifoveolato; elytris striato-punctatis, interstitiis punctulatis.

*Hab.* Australia.

Dark brassy brown, shining; head finely punctured, two foveæ between the eyes; clypeus separated from the front by an arched line; prothorax finely punctured, an indistinct median impressed line with a fovea on each side at the base; elytra striate-punctate, the punctures small and rather distant, the intervals between the striæ minutely punctured, the sides, abruptly declivous, shade off at the shoulder and apex; body beneath and legs brassy; tarsi beneath and last two or three joints of the antennæ covered with a ferruginous pile. Length 6 lines.

Alymon [Megacanthinæ].

*Caput* retractum; *clypeus* indistinctus. *Oculi* haud approximati. *Palpi maxillares* securiformes; *labiales* art. ult. brevi, cylindrico. *Maxillæ* lobo interno mutico. *Labium* antice rotundatum. *Mentum* trapezoidale. *Antennæ* tenuatæ, art. tertio cæteris longiore, 4, 5, 6 obconicis, 7–11 crassioribus et cylindricis. *Prothorax* transversus, antice angustior, lateribus rotundatus, apice emarginatus, basi subbisinuatus. *Elytra* latissima, convexa, arcuata, lateribus subparallela, flexuosa. *Pedes* mediocres; *femora* antica subtus dente valido instructa; *tibiæ* lineares, inermes; *tarsi* art. primo subelongato. *Antepectus* brevissimum, prosterno producto. *Mesosternum* cavitate Λ-forme. *Metasternum* incurvatum.

Allied to *Oplocheirus*, Lac.; but, besides other characters, such as the unarmed internal maxillary lobe, &c., it is radically distinguished by the arching of the elytra, which may be traced along their margins and epipleuræ, and to which the concavity of the metasternum corresponds.

*Alymon prolatus.*

*A.* cupreo-fuscus, nitidus; prothorace subtiliter, elytris striato-punctatis, his interstitiis vage punctatis.

*Hab.* Natal.

Dark copper-brown, shining; head and prothorax finely punctured, and having a sparse greyish pubescence, apparently very deciduous; scutellum triangular; elytra rounded at the shoulders, their breadth

equal to about two-thirds of their length, striato-punctate, the punctures very close, the intervals of the striæ with numerous scattered punctures, which are rather smaller than those of the striæ, the striæ eight in number on each elytron, the 4th and 5th uniting posteriorly, the 3rd and 6th also uniting beyond the two central, the remainder disappearing shortly before the apex; body beneath, legs, and palpi brown, with a thin greyish pile. Length 6 lines.

*Amarygmus* nigritarsis.*

*A.* oblongo-ovatus, sericeo-viridis; capite, prothorace, antennis tarsisque nigris, femoribus tibiisque ferrugineis; corpore infra chalybeato.

*Hab.* Queensland.

Oblong-ovate; head, prothorax, and scutellum black, nearly impunctate; antennæ more than half the length of the body, black; elytra bright satiny green, striato-punctate, the punctures minute, the rows widely apart, also a short inner line at the base near the scutellum; body beneath glossy black; femora and tibiæ reddish ferruginous; tarsi black. Length 6 lines.

*Amarygmus convexus.*

*A.* brevis, convexus, elliptico-ovatus; capite et prothorace nigris; elytris cyaneis, subnitidis, seriatim punctatis; antennis pedibusque ferrugineis.

*Hab.* Queensland.

Very convex, short, elliptic-ovate; head and prothorax impunctate, black; clypeus and lip edged with ferruginous; scutellum triangular, black; elytra dark blue, seriate-punctate, the punctures rather coarse, the rows at moderate intervals; two or three punctures on each side the scutellum; body beneath black, the last two abdominal segments glossy; antennæ, palpi, and legs ferruginous, the former about half the length of the body. Length $4\frac{1}{2}$ lines.

I have a species from Sydney, nearly as convex, but much more oblong; these are the only two very convex species I have seen.

*Amarygmus tarsalis.*

*A.* anguste ovatus, niger, subnitidus; prothorace brevi; elytris cyaneis, seriatim punctatis; antennis, tarsisque subferrugineis, pedibus et corpore subtus nigrescentibus, nitidis.

*Hab.* Queensland.

Narrowly ovate, moderately convex; head and prothorax opake, black, impunctate, the latter very short, the base rather strongly produced towards the scutellum, the latter triangular, black; elytra dark blue, slightly nitid, seriate-punctate, the punctures oblong and somewhat approximate, the rows at moderate intervals, a row of seven punctures

* Dalman, Anal. Ent. p. 60; Lacordaire, Gen. v. p. 473.

on each side, near the scutellum; body beneath glossy blackish; antennæ yellowish ferruginous, scarcely half the length of the body; legs blackish; tarsi yellowish ferruginous. Length $3\frac{1}{2}$ lines.

A small narrow species, with yellowish ferruginous tarsi.

### Dietysus [Amarygminæ].

*Caput* retractum; *clypeus* truncatus. *Labrum* rotundatum. *Mandibulæ* apice integræ. *Oculi* mediocres, modice approximati. *Palpi labiales* basi approximati. *Labium* transversum, emarginatum. *Mentum* trapeziforme, basi sensim angustius, ad latera margine elevato. *Maxillæ* lobo interno mutico. *Antennæ* longiusculæ, apicem versus crassiores, art. 3 elongato, 4–10 obconicis, ultimo ovato, apice oblique truncato. *Prothorax* transversus, utrinque rotundatus et tenuiter marginatus, antice angustior, basi subbisinuatus. *Elytra* ovata, prothorace basi vix latiora. *Pedes* longiusculi; *femora* sublinearia; *tibiæ* paulo curvatæ, calcaratæ; *tarsi* lineares, subtus ciliati, postici art. basali elongato. *Prosternum* productum, in cavitate mesosterni receptum. *Corpus* elliptico-ovatum, convexum.

I have long ago received specimens of this insect from M. Deyrolle, under the name here adopted. As the mesosternum presents no concavity as in the Strongylinæ, I have placed it with the Amarygminæ, with none of whose genera, however, does it seem to have any very marked affinity. The females appear to be considerably broader than the males. There are several species, one of them is from Aru.

#### *Dietysus confusus.*

*D.* elliptico-ovatus, fusco-æneus, nitidus; elytris striato-punctatis.

*Hab.* Java.

Elliptic-ovate, dark copper-brown, very glossy, and polished; head and prothorax minutely punctured; scutellum triangular; elytra finely striato-punctate, the punctures narrow and linear, the spaces between the striæ broad and flat; body beneath and legs brown, less shining than the back; anterior tarsi with the claw-joint as long as the preceding joints together. Length 6 lines.

#### *Spheniscus* cyaneus.*

*S.* cyaneus, nitidus; elytris brevibus, in medio obtuse elevatis, grosse et irregulariter punctatis.

*Hab.* Amazons.

Entirely dark blue, shining, a little paler on the elytra; head and prothorax finely punctured, the former with a large fovea between the eyes, the latter with the sides nearly straight, and with two deep foveæ

* Kirby, Trans. Linn. Soc. xii. p. 421; Lacordaire, Gen. v. p. 480.

on each side, the first behind the middle, the posterior nearly at the base and the smaller of the two; scutellum triangular, below the level of the elytra; elytra obtusely elevated in the middle, irregularly covered with coarse, deep punctures of varying size; body beneath and legs steel-blue, the latter darker, finely punctured; antennæ with the 7th joint obconic, the succeeding ones more or less transverse. Length 8 lines.

Very distinct, on account of its uniform dark-blue colour, from any of the nineteen species described in M. J. Thomson's Monograph.

Sinopium [Strongyliinæ].

Characteres ut in *Strongylio*; sed *oculi* minores. *Antennæ* breviusculæ, art. quatuor ultimis transversis, clavam compressam formantibus. *Tarsi* articulis, duobus ultimis exceptis, dilatatis, art. basali quam sequens vix longiore, art. ultimo cæteris simul sumptis æquali vel longiore.

To these characters it may be added that the three or four basal joints of the tarsi are fringed with long hairs, and that the onychium is very distinct. The type is *Sinopium variabile*, Walker (*Strongylium*), from Ceylon.

The two following genera of Tenebrionidæ having been suggested by M. Lacordaire, I have here given them names.

Ageonoma [Zopherinæ].

Type, *Ageonoma diabolica.*

*Nosoderma diabolicum*, Le Conte, Ann. Lyc. New York, v. p. 130.

Differs from *Nosoderma* in having prothoracic canals for the reception of the antennæ, and in the mandibles being entire at the apex, and from *Zopherus* in the labium and labial palpi being exposed, the mentum broadest at the base, contracted anteriorly, and deeply emarginate at the apex, in the subperfoliate antennæ, with the 11th joint nearly obsolete, the absence of the transverse groove on the last abdominal segment, &c. Lacordaire, Gen. v. p. 92.

Zygas [Adelostominæ].

Type, *Zygas cimicoides.*

*Eurychora cimicoides*, Quensel in Schönherr, Syst. Ins. i. p. 137, *note*,

Differs from *Steira* in having the third joint of the antennæ longer than the first, and from *Eurychora* and *Pogonobasis* in the base of the elytra being close to the base of the prothorax. Lacordaire, Gen. v. p. 98, *note*.

Sessinia [Œdemeridæ].

This genus, founded on those species of *Nacerdes* with *two* spines to their anterior tibiæ, was proposed by me in this Journal in January 1863. M. Léon Fairmaire, in the French 'Annales' for August in the same year, named the group *Ananca*, apparently not aware that it had been previously disposed of.

Othelecta [Cistelidæ].

*Caput* exsertum, oblongum; *clypeus* transversus, distinctus. *Labrum* magnum, hirsutum. *Mandibulæ* apice integræ. *Oculi* prominuli, obliqui. *Antennæ* filiformes, art. 3 et 4 æqualibus. *Mentum* transversum. *Labium* magnum, basi pedunculatum. *Palpi maxillares* art. ult. cultriformi, *labiales* triangulari. *Prothorax* quadratus, lateribus tenuissime marginatus, apice modice rotundatus, basi truncatus. *Scutellum* parvum, transversum. *Elytra* connexa, elongato-ovalia, humeris nullis; *epipleuræ* subverticales. *Pedes* mediocres; *femora* sensim incrassata; *tibiæ* rectæ; *tarsi* haud lamelligeri, lineares, postici art. basali elongato. *Coxæ* anticæ exsertæ, approximatæ. *Prosternum* angustissimum, postice basi latiore. *Mesosternum* antice rotundatum. *Metasternum* normale. *Processus* interfemoralis quadratus, antice paulo rotundatus. *Abdomen* segmentis quinque in utroque sexu.

There are several points of structure common to this and Solier's genus *Cylindrothorus*. The pronotum, however, is quite distinct from the flanks of the prothorax, although its separation is only marked by a very delicate line, which is continuous with the ordinary border-line and dips down at the sides, so that the flanks rise into a gradually narrowing point at each extremity. The penultimate joint of the tarsi is prolonged underneath the claw-joint, but can scarcely be called lamellate. The labium is almost membranous, and is attached to the mentum by a broad peduncle. This genus appears to form the type of a distinct subfamily.

*Othelecta torrida*. (Pl. XIX. fig. 5.)

*O.* nigra, nitida; elytris castaneis, longe et disperse pilosis.
*Hab.* 'NGami.

Black, shining; head and prothorax closely punctured, the punctures small, but deep and distinct, having at the bottom of each a whitish secretion; elytra brownish chestnut, oblong-oval, rather pointed behind and much broader in the female, finely but irregularly and rather remotely punctured, and having long, dispersed black erect hairs; body beneath and legs reddish chestnut, closely punctured, especially on the femora; tarsi clothed with close-set black stiffish hairs. Length 7–8 lines.

METISTETE [Cistelidæ].

*Caput* pone oculos paulo constrictum, antice breve; *clypeus* transversus. *Oculi* supra subapproximati, infra distantes. *Palpi maxillares* articulo ultimo latissime triangulari. *Prothorax* subtransversus, convexus, ad latera rotundatus et tenuiter marginatus, basi sinuatus. *Elytra* anguste obovata, humeris obsoletis. Cæteris ut in *Tanychilo.*

*Tanychilus* has a well-developed muzzle; this has none at all: nevertheless, notwithstanding the other characters, there is a considerable general resemblance between the two genera. The type is *Metistete gibbicollis* (*Tanychilus*), Newman (Entom. Mag. v. p. 489). *T. cistelides* of the same author may be another species, but it is unknown to me.

HOMOTRYSIS.

Characteres ut in *Allecula*; sed *antennæ* articulo tertio quam primus duplo longiore, quarto fere æquali. *Oculi* angustati, transversi. *Tarsi* validi, antici art. basali obconico, duobus sequentibus haud longioribus, transversis.

As *Allecula* stands at present it is far from being a homogeneous genus; but taking *A. morio* as the type, *Homotrysis* differs in the form of the eyes, the proportionate length of the joints of the antennæ, and the shorter and stouter tarsi, and especially of the shorter basal joints. The type is *Homotrysis tristis* (*Allecula*), Germar (Linn. Ent. iii. p. 201). The following species, remarkable for its small prothorax, has, however, more slender tarsi, which so far weakens the force of this character.

*Homotrysis microderes.*

*H.* nigra, pilosula; prothorace parvo, confertim punctato; elytris fulvo-brunneis, striato-punctatis; tibiis brunnescentibus.

*Hab.* Victoria.

Slenderer than *H. tristis*, the elytra being three times the length of their breadth, and the head and prothorax very much narrower, and the latter also shorter: these are similarly punctured, but less pilose; scutellum black, triangular; elytra striato-punctate, the interstices also punctured, pale fulvous-brown, except the suture, which is tinged with black; body beneath, legs, and antennæ black and shining; the tibiæ, except at the apex, fulvous-brown. Length 6 lines.

HYBRENIA [Cistelidæ].

*Homotrysi* affinis; sed *oculi* magni, approximati. *Prothorax* basi elytrorum arcte applicatus.

The large approximate eyes will also distinguish this genus, *inter*

*alia*, from *Isomira*. The four anterior tarsi have all their joints furnished with lamellæ, except of course the claw-joint; the posterior have only the penultimate joint lamellate; but these are of scarcely sufficient importance as generic characters.

*Hybrenia insularis.*

*H.* brunneo-ferruginea, pube grisea sparsa; elytris striato-punctatis, unicoloribus; antennis fuscis.

*Hab.* Lizard Island (Northern Australia).

Brownish ferruginous; the elytra paler, clothed with short sparse semidecumbent grey hairs; head scarcely longer than broad, the lip produced; antennæ dark brown, slender, about two-thirds the length of the body; prothorax transverse, truncate at the apex and base, rounded at the sides, and finely margined, narrower anteriorly, the posterior angle not produced; scutellum triangular; elytra oblong-ovate, the broadest part behind the middle, not broader at the base than the base of the elytra, striate-punctate, the intervals between the striæ somewhat transversely punctured; body beneath reddish chestnut, finely punctured; legs brownish, with grey hairs. Length 6 lines.

*Hybrenia vittata.*

*H.* rufo-brunnea, pube griseâ sparsa; elytris striato-punctatis, sutura vittisque duabus viridescentibus; antennis rufescentibus, fusco annulatis.

*Hab.* Port Albany (Northern Australia).

Light reddish brown, with a sparse greyish pubescence; head and prothorax as in the last; antennæ pale reddish or tawny, all the joints except the first two, dark brown at the apex; elytra narrower than in the last, striate-punctate, the intervals between the striæ somewhat transversely punctured, the suture and two dark-greenish stripes on each, neither of them extending to the apex, and the antennæ commencing at some distance from the shoulder; body beneath brownish chestnut, shining; legs tawny; femora and tibiæ with a large dark-brown blotch on each, except on the posterior tibiæ. Length 6 lines.

Chromomæa [Cistelidæ].

*Caput* antice subproductum. *Labrum* rotundatum. *Mandibulæ* elongatæ. *Oculi* mediocres, distantes. *Palpi maxillares* elongati, art. ult. cultriformi, *labialium* breviter triangulari. *Antennæ* breviusculæ, art. primo gracili, tertio elongato, cæteris obconicis. *Prothorax* oblongus, fere parallelus, ad latera tenuiter marginatus, basi truncatus. *Elytra* prothorace latiora, oblongo-ovata. *Pedes* mediocres; *tibiæ* rectæ, valide calcaratæ; *tarsi* antici et intermedii paulo dilatati, art. ult. duobus præcedentibus longiore, postici graciles, art. ult. elongato. *Prosternum* elevatum. *Mesosternum* declive. *Processus* interfemoralis anguste triangularis.

M. Bohemann's genus *Euomma** is, I have no doubt, identical with my *Apellatus* (*ante*, p. 45), notwithstanding the author approximating it to *Eutrapela*, entirely overlooking its pectinated claws, and the form of the last antennal joint. *Euomma* has, however, been long used for a genus of Curculionidæ; but as we have both happened to fix on the same name for the two species we have respectively described, it becomes necessary to change mine as the later of the two. I propose, therefore, to call it *Apellatus amœnus*, M. Bohemann's retaining that of "*lateralis*." *Chromomœa* has much the same general appearance, but has small eyes, widely apart, and a differently formed prothorax; in the latter respect it agrees with *Æthyssius*†, but which, *inter alia*, has a truncate interfemoral process. The Cistelidæ appear to be well represented in Australia, although few species are published.

*Chromomœa picta.*

*C.* pallide-flava, subnitida, capite, prothorace, lateribus et regione suturali elytrorum nigris.

*Hab.* Queensland.

Pale yellowish, slightly shining; head and prothorax brownish black, closely and finely punctured; lip, antennæ, and palpi yellowish; mandibles black; scutellum black, very transverse; elytra striate-punctate, the punctures approximate, the intervals between the striæ rather broad; sutural region, sides, and epipleuræ black; body beneath glossy black; legs yellowish, the apical half of the posterior thighs black. Length 5 lines.

Ictistygna [Lagriidæ].

*Caput* subquadratum, ad angulum posticum rotundatum; collum angustatum. *Labium* transversum. *Oculi* rotundati. *Mentum* transversum. *Labrum* membranaceum, rotundatum, basi pedunculatum. *Maxillæ* lobo externo minuto, triangulari. *Palpi labiales* parvi, apicem versus incrassati, art. ult. triangulari; *palpi maxillares* art. ult. securiformi. *Antennæ* modice elongatæ, art. basali elongato, incrassato, 2°, 3° brevioribus, cæteris tertio longioribus, subobconicis, ultimo præcedente longiore. *Prothorax* late ovatus, antice in collum constrictus, lateribus rotundatus, postice angustior. *Elytra* oblonga, angustata. *Tibiæ* bicalcaratæ, anticæ extus spinosæ; *tarsi* art. primo elongato, penultimo subbilobo. *Mesosternum* angustissimum. *Corpus* elongatum, hirsutum.

This genus and *Diacalla* (*ante*, p. 46), should, I think, form a separate subfamily among the Lagriidæ, distinguished by their rounded eyes, spurred tibiæ, and peculiar habit, from the more

* Fregat. Eugenies, Ins. p. 101, pl. 2. fig. 1.

† *Atractus* (MacLeay), Lacord. *nec* Laporte (see *ante*, p. 45, *note*).

typical *Lagriæ*. *Diacalla* differs from this genus, *inter alia*, in the form of the head and prothorax, in the shorter antennæ, in the greater length and cultriform shape of the external maxillary lobe, in the longer and cylindrical labial palpi, &c. &c. The spines on the anterior tibiæ are almost hidden by the pubescence.

*Ictistygna vetula.*

*I.* fusca, elytris pedibusque rufulis.

*Hab.* New South Wales.

Dark brown, with a thin greyish pubescence, mixed with long erect hairs; head and prothorax covered with coarse crowded punctures; scutellum quadrate, with a close silvery pubescence; elytra nearly twice the breadth of the prothorax at the base, dull reddish, shining, coarsely punctate, the punctures deeply impressed and nearly contiguous, with the intervals very rugose; body beneath reddish brown or dark brown, with a greyish pubescence; legs reddish, pubescent; antennæ about half the length of the body, the second joint a little shorter than the third. Length 5 lines.

*Ictistygna adusta.*

*I.* nigra, elytris pedibusque rufulis, tarsis anticis quam in præcedente longioribus.

*Hab.* New South Wales.

Smaller, and more slender than the former, with the head, prothorax, and antennæ black, the second joint of the antennæ much shorter than the third, the anterior tarsi longer and narrower, and the anterior tibiæ less spined on their outer edge. Length $2\frac{3}{4}$ lines.

Euciodes [Anthribidæ].

*Caput* infra oculos paulo latius; *rostrum* transversum, antice truncatum; *scrobe* magna, rotundata. *Antennæ* maris corpore plus duplo longiores, art. primo brevi crasso, secundo elongato-obconico, reliquis ad nonum capillaribus, apice nodosis, duobus ultimis brevibus clavam formantibus. *Oculi* mediocres, laterales, armati. *Prothorax* subcylindricus; *carina* basi haud parallela, et ad latera vix continuata. *Elytra* cylindrica, prothorace paulo latiora. *Pedes* mediocres; *tarsi* art. basali sequentibus duobus simul sumptis haud longiore.

Most of the characters of this genus are those of *Exillis**, after which it may be ranked. It has, however, the head broader below, so as to form a strong margin round the scrobe, the second antennal joint elongate and obconic, the ninth entering less decidedly into

* Pascoe, Ann. and Mag. Nat. Hist. ser. 3. v. p. 43. *See* also Lacordaire Genera, &c. vii. p. 583.

the club, and the club itself much shorter, the carina of the prothorax only very slightly prolonged at the sides, and the basal joint of the tarsi much shorter. The female is stouter and larger, with antennæ scarcely longer than the body. The amount of pubescence varies according to the individual. For this interesting addition to the scanty list of Australian Anthribidæ I am indebted to Mr. Odewahn.

*Euciodes suturalis.*

*E.* nigra, pilis albis sparse induta, præcipue in regione suturali.
*Hab.* South Australia.

Black, with a slight brassy tinge, sparsely and irregularly covered with longish chalky-white hairs; antennæ black, the two basal joints sometimes reddish testaceous; eyes black, forming a regular arch above the scrobe; prothorax rounded, and a little narrower anteriorly; scutellum oblong; elytra punctato-striate, but the striæ nearly concealed by the pubescence; body beneath with a close white pile; legs black; the tibiæ reddish testaceous. Length $1\frac{1}{4}$–2 lines.

## EXPLANATION OF THE PLATES.

### Plate XVIII.

Fig. 1. *Ozolais scruposa.*
„ 2. *Cnecosa fulvida.*
„ 3. *Ilyxerus asper.*
„ 4. *Psacus attagenoides.*
„ 5. *Antrisis Saundersii.*
„ 6. *Intybia guttata.*
„ 7. *Ochrosanis Dohrnii.*
„ 8. *Idisia ornata.*

### Plate XIX.

Fig. 1. *Enarsus Bakewellii.*
„ 2. *Emmometes Lacordairei.*
„ 3. *Empsara Adamsii.*
„ 4. *Atryphodes egerius.*
„ 5. *Othelecta torrida.*
„ 6. *Byzacnus picticollis.*
„ 7. *Emeax sculpturatus.*
„ 8. *Cymbeba dissimilis.*

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## XXXI.—*List of described Species of Australian* Heteromera.

By Francis P. Pascoe, F.L.S., F.Z.S., &c.

The following list of Australian Heteromera contains the names of 96 genera and 270 species. The European Heteromera comprise about 190 genera and 1200 species. Is there any reason why the Australian species should not be quite as numerous? As it is, the present list does not enumerate all those now existing in collections: but the Heteromera, from their general uniformity of colour, have attracted less attention and are less readily recognized than the more gaily coloured groups; and this causes many species to be overlooked by those entomologists to whom the ordinary forms are

not familiar. It is to be hoped that this list will draw the attention of our Australian friends to the subject:—

**Fam. Tenebrionidæ.**

Subfam. Asidinæ.

Dysarchus, Pasc.

*D. Odewahnii*, Pasc.

Subfam. Zopherinæ.

Zopherosis, Wh.

*Z. Georgii*, Wh.

Subfam. Stenosinæ.

Cotulades, Pasc.

*C. fascicularis*, Pasc.
— *leucospila*, Hope.

Elascus, Pasc.

*E. brevicornis*, Pasc.
— *lunatus*, Pasc.

Docalis, Pasc.

*D. exoletus*, Pasc.
— *degener*, Pasc.

Subfam. Scaurinæ.

Emeax, Pasc.

*E. sculpturatus*, Pasc.

Subfam. Pedininæ.

Platynotus, Hope.

*P. insularis*, Hope.

Onosterrhus, Pasc.

*O. lævis*, Pasc.

Subfam. Opatrinæ.

Opatrum, Fab.

*O. australe*, Bois.
— *denticolle*, Bl.
— *vittigerum*, Bl.
— *piceitarse*, Hope.

Cestrinus, Er.

*C. obscurus*, Er.
— *trivialis*, Er.

Cædius, Bl.

*C. sphæroides*, Hope.

Isopteron, Hope.

*I. opatroides*, Hope.

Sobas, Pasc.

*S. australis*, Hope.

Subfam. Trachyscelinæ.

Hyocis, Pasc.

*H. Bakewellii*, Pasc.

Scymena, Pasc.

*S. variabilis*, Pasc.

Ecripsis, Pasc.

*E. pubescens*, Pasc.

Sphargeris, Pasc.

*S. physodes*, Pasc.

Subfam. Bolitophaginæ.

Byrsax, Pasc.

*B. Macleayi*, Pasc.
— *egenus*, Pasc.

Ilyxerus, Pasc.

*I. asper*, Pasc.

Subfam. Diaperinæ.

Platydema, Lap.

*P. tetraspilota*, Hope.

Ceropria, Lap. et Br.

*C. spectabilis*, Lap. et Br.
— *peregrina*, Pasc.

Subfam. Ulodinæ.

Ulodes, Er.

*U. verrucosa*, Er.
— *sapphira*, Newm.
— *variicornis*, Hope.

Dipsaconia, Pasc.

*D. Bakewellii*, Pasc.
— *pyritosa*, Pasc.

Subfam. Ulominæ.

Uloma, Redt.

*U. depressa*, Pasc.

Achthosus, Pasc.

*A. Westwoodii*, Pasc.

Toxicum, Latr.

*T. punctipenne*, Pasc.
— *brevicorne*, Pasc.

Subfam. Helæinæ.

Ellæmus, Pasc.

*E. gibbosus*, De Br.
— *submaculatus*, De Br.
— *Bremei*, Hope.

Pterohelæus, De Br.

*P. Walkerii*, De Br.
— *piceus*, Kirby.
— *insularis*, De Br.
— *pruinosus*, Pasc.
— *peltatus*, De Br.
— *planus*, Blessig.
— *striato-punctatus*, Bois.
— *Kollarii*, De Br.
— *agonus*, Pasc.
— *silphoides*, De Br.
— *servus*, Pasc.
— *Reicheii*, De Br.
— *Guerinii*, De Br.
— *parallelus*, De Br.
— *memnonius*, Pasc.
— *bullatus*, Pasc.

Helæus, Latr.

*H. perforatus*, Latr.
— *Kirbyii*, De Br.
— *Spencei*, De Br.
— *colossus*, De Br.
— *princeps*, Hope.
— *moniliferus*, Pasc.
— *consularis*, Pasc.
— *intermedius*, De Br.
*H. Brownii*, Kirby.
— *castor*, Pasc.
— *Hopei*, De Br.
— *ovatus*, Guér.
— *Peronii*, Bois.
— *falcatus*, Pasc.
— *echidna*, Wh.
— *Macleayi*, De Br.
— *tuberculatus*, De Br.
— *echinatus*, Hope.
— ? *Spinolæ*, Hope.

Sympetes, Pasc.

*S. Macleayi*, Pasc.
— *tricostellus*, Wh.

Saragus, Er.

*S. lævicollis*, Fab.
— *emarginatus*, Guér.
— *infelix*, Pasc.
— *interruptus*, De Br.
— *Odewahnii*, Pasc.
— *Australis*, Bois.
— *marginellus*, Hope.
— *tarsalis*, Hope.
— *simplex*, Hope.
— *granulatus*, Germ.
— *peltatus*, Er.
— *unicarinatus*, Bois.
— *subrugosus*, De Br.
— *gagates*, De Br.
— *rotundatus*, De Br.
— *orbicularis*, De Br.
— *Duboulayi*, Pasc.
— *exulans*, Pasc.
— *tristis*, Germ.
— *brunnipes*, De Br.
— *magister*, Pasc.
— *asidoides*, Pasc.
— *carinatus*, De Br.
— *elongatus*, De Br.

Ospidus, Pasc.

*O. chrysomeloides*, Pasc.

Subfam. Cossyphinæ.

Cossyphus, Ol.

*C. Odewahnii*, Pasc.

Subfam. TENEBRIONINÆ.

NYCTOBATES, Guér.

*N. crenatus*, Bois.
— *angulatus*, Er.
— *orcus*, Pasc.
— *feronioides*, Pasc.

BARYSCELIS (Bois.).

*B. australis*, Bois.

UPIS, Fab.

*U. cylindricus*, Germ.

MENEPHILUS, Muls.

*M. longipennis*, Hope.
— *convexiusculus*, Hope.
— *humilis*, Er.
— *colydioides*, Er.
— *corvinus*, Er.
— *nigerrimus*, Bl.

DECHIUS, Pasc.

*D. aphodioides*, Pasc.

SYNERCTICUS, Newm.

*S. heteromerus*, Newm.
— *piceus*, Pasc.

Subfam. CYPHALEINÆ.

CYPHALEUS, Westw.

*C. formosus*, Westw.
— *iopterus*, Westw.
— *aterrimus*, G. R. Gray.
— *insignitus*, Pasc.

PLATYPHANES, Westw.

*P. gibbosus*, Westw.
— ? *vittatus*, Westw.
— *cyaneus*, Westw.

OREMASIS, Pasc.

*O. cupreus*, G. R. Gray.

LYGESTIRA, Pasc.

*L. simplex*, Westw.

CHARTOPTERYX, Westw.

*C. Childrenii*, Westw.
— *binodosa*, Pasc.

OLISTHÆNA, Er.

*O. nitida*, Er.

LEPISPILUS, Westw.

*L. sulcicollis*, Bois.

Subfam. CNODALINÆ.

CHARIOTHECA, Pasc.

*C. amaroides*, Pasc.

DAMATRIS, Lap.

*D. Reaumuri*, Lap.
— *sumptuosa*, Hope.

CAMPOLENE, Pasc.

*C. nitida*, Pasc.

Subfam. HELOPINÆ.

ATRYPHODES, Pasc.

*A. Walckenaeri*, Hope.
— *Kirbyii*, Sol.
— *Macleayi*, Pasc.
— *aratus*, Pasc.
— *errans*, Pasc.
— *egerius*, Pasc.

OTRINTUS, Pasc.

*O. Behrii*, Germ.

ADELIUM, Kirby.

*A. porcatum*, Fab.
— *angulare*, Pasc.
— *angulicolle*, Lap.
— *succisum*, Pasc.
— *vicarium*, Pasc.
— *congestum*, Pasc.
— *tenebrioides*, Er.
— *brevicorne*, Blessig.
— *obesum*, Pasc.
— *auratum*, Pasc.
— *striatum*, Pasc.
— *calosomoides*, Kirby.
— *helopoides*, Bois.
— *licinoides*, Kirby.
— *latum*, Pasc.

CORIPERA, Pasc.

*C. deplanata*, Bois.

Seirotrana, Pasc.

*S. catenulata*, Bois.

Cymbeba, Pasc.

*C. dissimilis*, Pasc.

Omolipus, Pasc.

*O. corvus*, Pasc.
— *socius*, Pasc.

Arcothymus, Pasc.

*A. cœnosus*, Pasc.

Mimopeus, Pasc.

*M. amaroides*, Pasc.

Subfam. Amarygminæ.

Amarygmus, Dalm.

*A. cupreus*, Fab.
— *tristis*, Fab.
— *bicolor*, Fab.
— *smaragdulus*, Fab.
— *amethystinus*, Fab.
— *viridicollis*, MacLeay.
— *velutinus*, MacLeay.
— *nigritarsis*, Pasc.
— *columbinus*, Bois.
— *resplendens*, Bois.
— *longipennis*, Hope.
— *cupripennis*, Hope.
— *cupricollis*, Hope.
— *puncticollis*, Hope.
— *sulcipennis*, Hope.
— *picicornis*, Hope.
— *cyanipennis*, Hope.
— *anthracinus*, Hope.
— *purpureus*, Germ.
— *fervens*, Germ.
— *fastuosus*, Germ.
— *fulvitarsis*, Pasc.
— *convexus*, Pasc.
— *iridicolor*, Blessig.
— *variabilis*, Blessig.
— *affine*, Blessig.
— *lævicollis*, Blessig.

Subfam. Strongylinæ.

Cholipus, Pasc.

*C. brevicornis*, Pasc.

Strongylium, Kirby.

*S. Macleayi*, Pasc.

Fam. **Cistelidæ.**

Æthyssius, Pasc.

*Æ. viridis*, Bois.

Tanychilus, Newm.

*T. striatus*, Newm.

Metistete, Pasc.

*M. gibbicollis*, Newm.

Allecula, Fab.

*A. morio*, Fab.

Homotrysis, Pasc.

*H. tristis*, Germ.
— *microderes*, Pasc.
— ?*fuscipennis*, Blessig.

Hybrænia, Pasc.

*H. insularis*, Pasc.
— *vittata*, Pasc.

Apellatus, Pasc.

*A. lateralis*, Bohem.
— *amœnus*, Pasc.

Chromomæa, Pasc.

*C. picta*, Pasc.

Fam. **Lagriidæ.**

Lagria, Fab.

*L. grandis*, Schön.
— *tomentosa*, Fab.
— *rufescens*, Bois.

Diacalla, Pasc.

*D. infelix*, Pasc.

Ictistygna, Pasc.

*I. vetula*, Pasc.
— *adusta*, Pasc.

Eutrapela, Bl.

*E. Australica*, Bohem.

Fam. **Pedilidæ.**

Xylophilus, Latr.

*X. fasciatus*, Bohem.

Fam. **Anthicidæ.**

Notoxus, Geoffr.
*N. Australasiæ*, Laf.

Mecynotarsus, Laf.
*M. albulus*, Pasc.

Formicomus, Laf.
*F. cyaneus*, Hope.
— *senex*, Laf.

Tomoderus, Laf.
*T. vinctus*, Er.

Anthicus, Payk.
*A. stictus*, Er.
— *comptus*, Laf.
— *crassipes*, Laf.

Fam. **Pyrochroidæ.**

Lemodes, Bohem.
*L. coccineus*, Bohem.

Fam. **Mordellidæ.**

Mordella, Linn.
*M. mixta*, Fab.
— 10-*guttata*, Fab.
— *Australis*, Bois.
— *tomentosa*, Bois.
— *leucostictica*, Germ.
— *exilis*, Germ.
— *albosignata*, Bohem.

Fam. **Rhipiphoridæ.**

Trigonodera, Gerst.
*T. nuda*, Gerst.
— *conicicollis*, Lap.
— *senilis*, Gerst.
— *lutea*, Gerst.
— *sericea*, Gerst.

Euctenia, Gerst.
*E. sericea*, Gerst.

Evaniocera, Guér.
*E. pruinosa*, Gerst.
— *nervosa*, Gerst.

Emenadia, L. de Cast.
*E. novæ-hollandiæ*, Gerst.
— *tricolor*, Fab.
— *maculicollis*, Bohem.

Nephritis, Shuck.
*N. nitidus*, Shuck.

Fam. **Cantharidæ.**

Palæstra, Lap.
*P. rufipennis*, L. de Cast.

Tmesidera, Westw.
*T. rufipennis*, Westw.
— *violacea*, Hope.
— *assimilis*, Hope.
— *ruficollis*, Hope.

Zonitis, Fab.
*Z. rostratus*, Blessig.
— *cyanipennis*, Pasc.
— *dichroa*, Germ.
— *tricolor*, Le Guillon.

Sitarida, White.
*S. Hopei*, White.

Goëtymes, Pasc.
*G. flavicornis*, Pasc.

Fam. **Œdemeridæ.**

Agasma, Newm.
*A. semicrudum*, Newm.

Sessinia, Pasc.
*S. livida*, Fab.
— *lineata*, Fab.
— *punctata*, MacLeay.
— *bivittata*, Bois.
— *luctuosa*, Bois.
— *australis*, Bois.
— *brevicornis*, Bois.
— *nigro-vittata*, Bohem.

Asclera, Schmidt.
*A. mansueta*, Newm.

SELENOPALPUS, White.
*S.? æneus*, Fab.

PSEUDOLYCUS, Guér.
*P. hæmorrhoidalis*, Fab.
— *cinctus*, Guér.
*P. atratus*, Guér.
— *hæmopterus*, Guér.

DOHRNIA, Newm.
*D. miranda*, Newm.

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## XXXII.—*Description of a new Neuropterous Insect belonging to the genus* Corydalis, *Latreille.* By R. McLACHLAN, F.L.S.

### *Corydalis Hecate.*

Plate XX. fig. 1, ♂; 1 *a*, anal appendices, from above; 1 *b*, ditto, from the side; fig. 2, ♀.

*C.* brunnea; capite supra et infra ruguloso, marginibus lateralibus fere rectis, dente subacuto instructis; mandibulis in ♂ ♀ fere æqualibus, capite brevioribus, intus sub apice tridentatis; antennis gracilibus, testaceis; prothorace lævi, supra convexo, lateribus parallelis; alis ♂ fuliginoso-subhyalinis, ♀ cinereo-subhyalinis (anticis basin versus pallidioribus), areolis costalibus nonnullis apicem versus, spatio longo in area subcostali et maculis parvis in cellulis (in posticis minus numerosis) albidis, venis longitudinalibus rufo-brunneis, venulis transversalibus nigricantibus; pedibus pallide rufo-brunneis; ♂ appendicibus superioribus elongatis, ad basin dilatatis.

Long. corp. ♂ 1″ 9‴, ♀ 3″ 0‴; exp. alar. ♂ 4″ 5‴, ♀ 5″ 9‴.

*Habitat* in Brasilia.

Brown. *Head* roughened above and below, the sides nearly straight and furnished with a somewhat sharp tooth at the lower angle. *Antennæ* slender, testaceous. Mandibles nearly similar in both sexes, shorter than the head, reddish brown, darker at the tips; furnished internally with three teeth below the apex, the inner the smallest. *Eyes* dark shining olive-green. Ocelli yellow. Palpi blackish.

*Prothorax* longer than broad, strongly convex above, smooth, the sides parallel. *Mesothorax* subcordate. *Metathorax* transversely quadrate, the hinder margin sinuated; a rather deep depression in the middle posteriorly.

*Wings* smoky in the male, cinereous in the female, in which latter sex the anterior pair are decidedly paler towards the base; some of the costal areolets towards the apex, a long space in the subcostal area, two or three rather large spots below this space (more conspicuous in the male), and small dots in the cellules (few and little evident in the posterior wings) whitish; longitudinal veins reddish brown; transverse nervules not very numerous, conspicuously blackish.

*Legs* pale reddish brown, somewhat obscure at the tips of the tibiæ.

*Abdomen* brown.

*Anal appendices* of the male reddish brown; the superior pair long,

dilated at the base, the apex slender, and curved downwards and slightly inwards; inferior pair rather shorter than the superior, subcylindrical, obtuse, curved strongly inwards.

I obtained a pair of this magnificent insect from the late M. Deyrolle. They are from Brazil, but I am unable to indicate any more exact locality. The female exceeds in size any described species of the genus. Distinct from all previously described species, with short mandibles in the male. *C. nubila*, Erichson (Schomburgk's Reisen in Brit. Guiana, vol. iii.), perhaps somewhat resembles it, but is very much smaller, and has the antennæ black for two-thirds of their length. Five undescribed species from South America are noticed, by name only, in the Appendix to Hagen's 'Synopsis of the North American Neuroptera' (p. 321); but of these I possess no information.

In all branches of entomology we are constantly reminded of the uncertainty that attends our attempts to fix generic characters on some striking peculiarity; for experience frequently proves that the character which at first seemed most forcibly generic, is in reality only specific, and demonstrates the impossibility of fixing any general laws to govern generic division. The genus *Corydalis* is in this case. Formed by Latreille for the reception of the *Raphidia cornuta* of Linnæus, the enormous cornuted mandibles of the male seemed to point emphatically to that character as generic; but further materials have shown that it is merely specific: numerous gradations occur in species, which otherwise so precisely agree that they could not reasonably be generically differentiated.

*Corydalis* belongs to the limited family *Sialidæ*, differing from *Sialis* in the possession of ocelli, in the structure of the tarsi, and in the position of the wings in repose, but closely allied to *Chauliodes*, in which genus the antennæ of the males are pectinated or serrated, and the prothorax is broader. Whether the genus *Hermes* of G. R. Gray can justly retain its position as distinct from *Chauliodes*, is a matter of opinion; the structure of the antennæ appears to present most undoubted gradations*.

* *Chloroperla prasina*, Newman (Zoologist, vol. iii. p. 853, 2), from New Zealand, has been wrongly placed in *Hermes* by Walker (Cat. Brit. Mus. Neurop. pt. ii. p. 206, 10). It undoubtedly pertains to the *Perlidæ*, in which family it was originally located.

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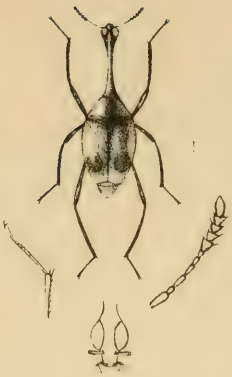

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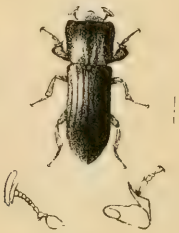

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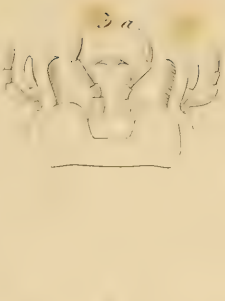
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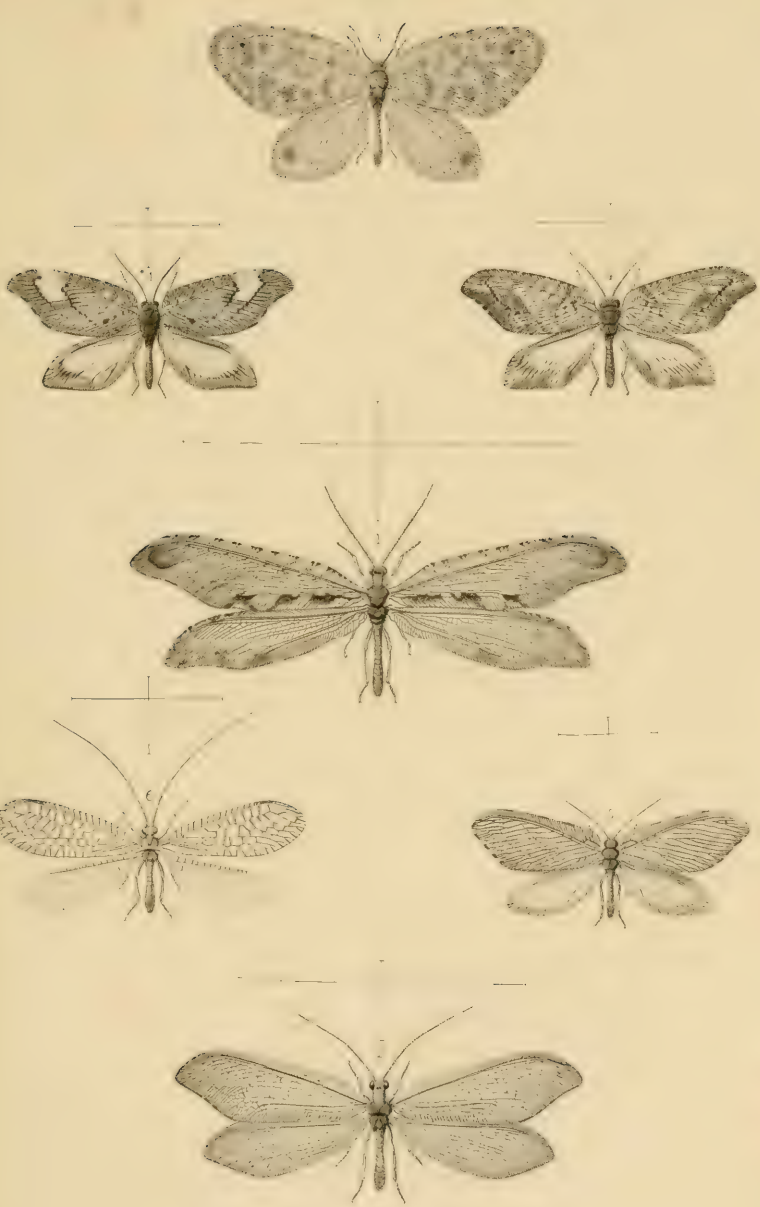

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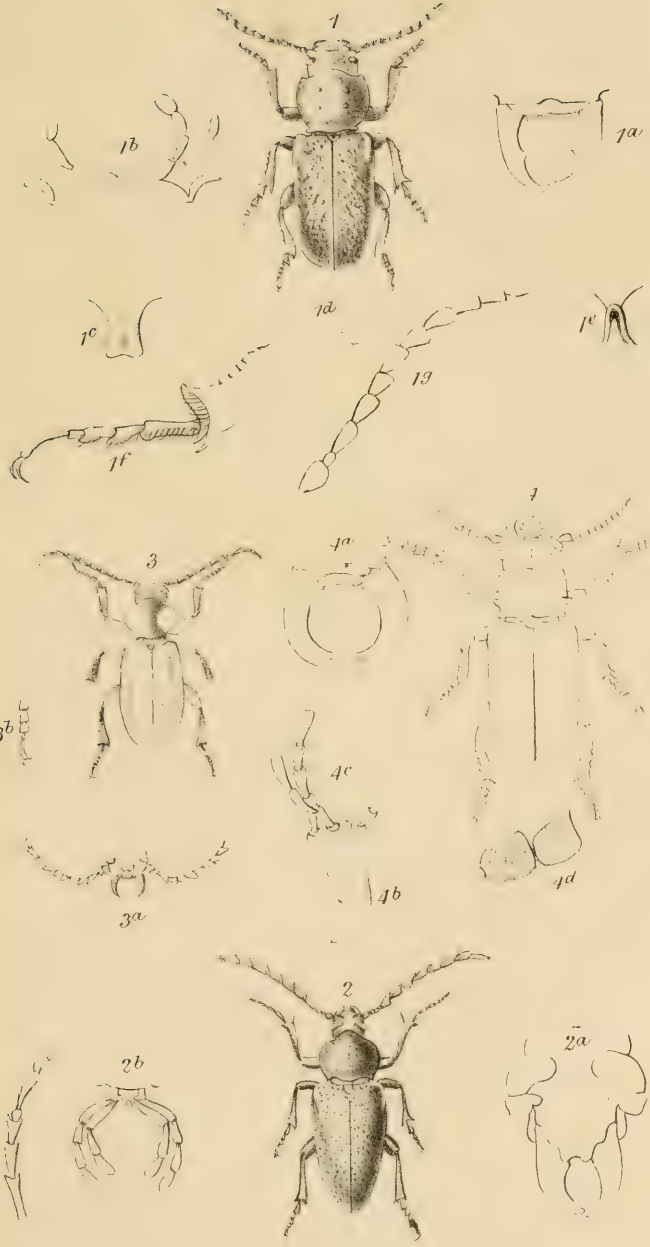
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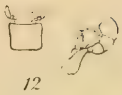
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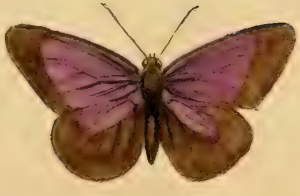
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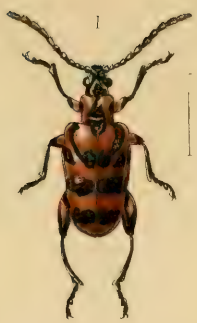

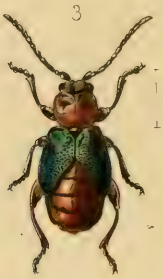

E.W. Robinson. Del.t et Sc.P. 1863.

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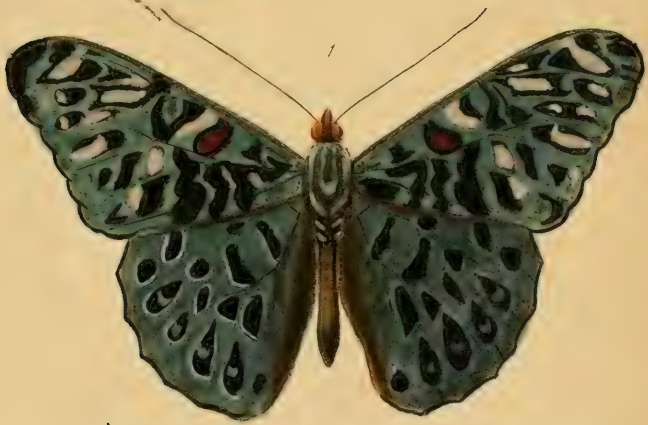
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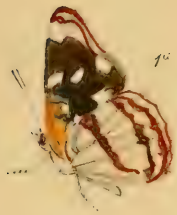

E. W. Robinson lith.

W. West imp.

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E.W. Robinson, Del. et Sc. 1865.

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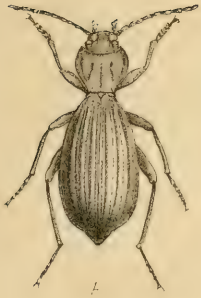

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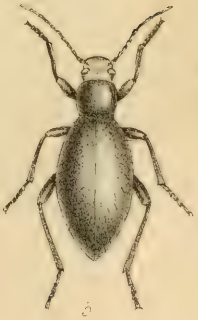

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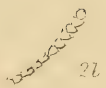

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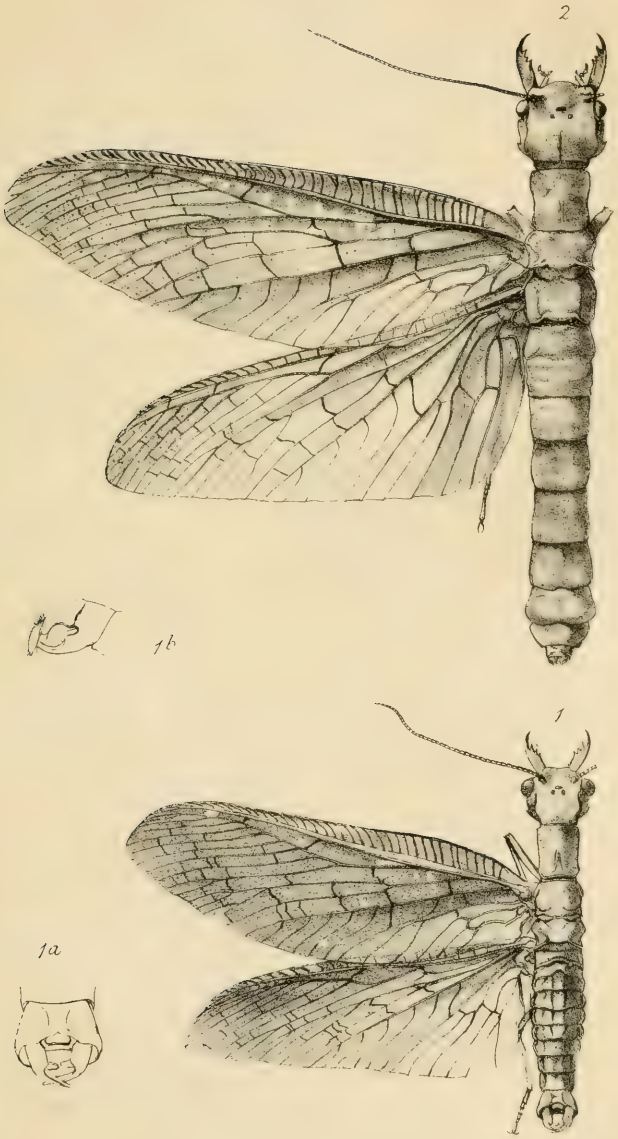
E. Smith del et lith

W West imp




E. W. Robinson Del.t 1866.

W. West imp

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